

Report of
Hydrogeological Investigation
Foto-Hut Site #91-1101

Route 4
Rutland, Vermont

December 1993

Prepared for:

Chittenden Bank NA
Two Burlington Square, P.O. Box 820
Burlington, Vermont 05402

Prepared by:

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THE JOHNSON COMPANY, INC.

Environmental Sciences and Engineering

December 6, 1993

Mr. Charles Schwer, Supervisor
Sites Management Section
Hazardous Materials Management Division
103 S. Main Street/West Office
Waterbury, Vermont 05671-0404

Re: Report of Hydrogeological Investigation for Foto-Hut Site,
Rutland, Vermont (Site #91-1011)
JCO #1-0342-2

Dear Chuck:

Enclosed please find the report for the Site referenced above. We have included an analysis of the likely contaminant sources. Pursuant to Sections 1922(10) and 1926 of the Vermont Underground Storage Tank Regulations it is our opinion that the costs of this investigation and the costs of the tank removal and associated contaminated soil and sludge disposal are eligible for reimbursement through the Petroleum Cleanup Fund (PCF).

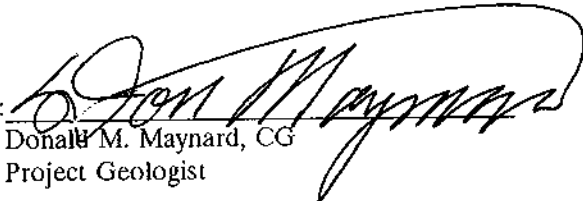
The report includes recommendations for additional work. This additional work will commence with the preparation of a work plan for remedial investigations and remedial design. The work plan will also include a cost estimate for the investigations and design. The cost of generating the work plan is estimated to be \$1,500. It is our opinion that these and other remedial costs are eligible for reimbursement through the PCF. Attached is the remedial investigation and design work plan for your review and approval.

We would appreciate your prompt review of these documents, and a written response as to the acceptability of the proposed work plan. If you have any questions or comments, please do not hesitate to call me or Martin Johnson at 229-4600.

Sincerely,

THE JOHNSON COMPANY, INC.

By:


Donald M. Maynard, CG
Project Geologist

cc: Chris Bishop

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1.0 INTRODUCTION

An extensive hydrogeological investigation has been completed at the Foto-Hut Site on Woodstock Avenue in Rutland, Vermont (the Site, see Figure 1, Site Location Map). This investigation was prepared in response to a request by Mr. Chris Bishop of the Chittenden Bank. The work performed during this investigation was detailed in a September 22, 1993 work plan presented to the Vermont Hazardous Materials Managements Division, Sites Management Section (HMMD). The work plan was approved by Mr. Charles Schwer, supervisor of the HMMD. The primary objectives of the work included:

- 1) Characterization of the extent, chemical nature, and concentration of contamination in the soils and upper surficial aquifer at the Site.
- 2) Determination of the sources, and migration pathways of the contamination.
- 3) Identification or confirmation of existing and potential receptors of the contamination.
- 4) Development of a conceptual design for a term monitoring and/or remedial plan.
- 5) Determination of what percentage of costs are eligible for reimbursement by the Vermont petroleum cleanup fund (PCF).

2.0 HISTORICAL PERSPECTIVE

The information presented in this section was collected during a background investigation conducted in the fall of 1993. The background investigation included a records search for any data regarding the history and operation of the Site and vicinity, including the following:

- Results of the following investigations and assessments available in the HMMD files:
 - 1989 underground storage tank (UST) removal assessment for Bob's Texaco in Rutland, Vt. Vermont Hazardous Release Site #89-0377
 - March 4, 1991 report of investigation at the Foto-Hut Site performed by The Johnson Company, Inc.
 - April 1992 report of UST removal at the Foto-Hut Site prepared by The Johnson Company, Inc.
 - August 1993 Remedial Investigation Report, H. A. Eddy Convenience Store in Rutland, Vt. prepared by The Johnson Company, Inc.
- December 16, 1992 and July 12, 1993 Preliminary Assessments of the Foto-Hut Site performed by the Vermont HMMD.

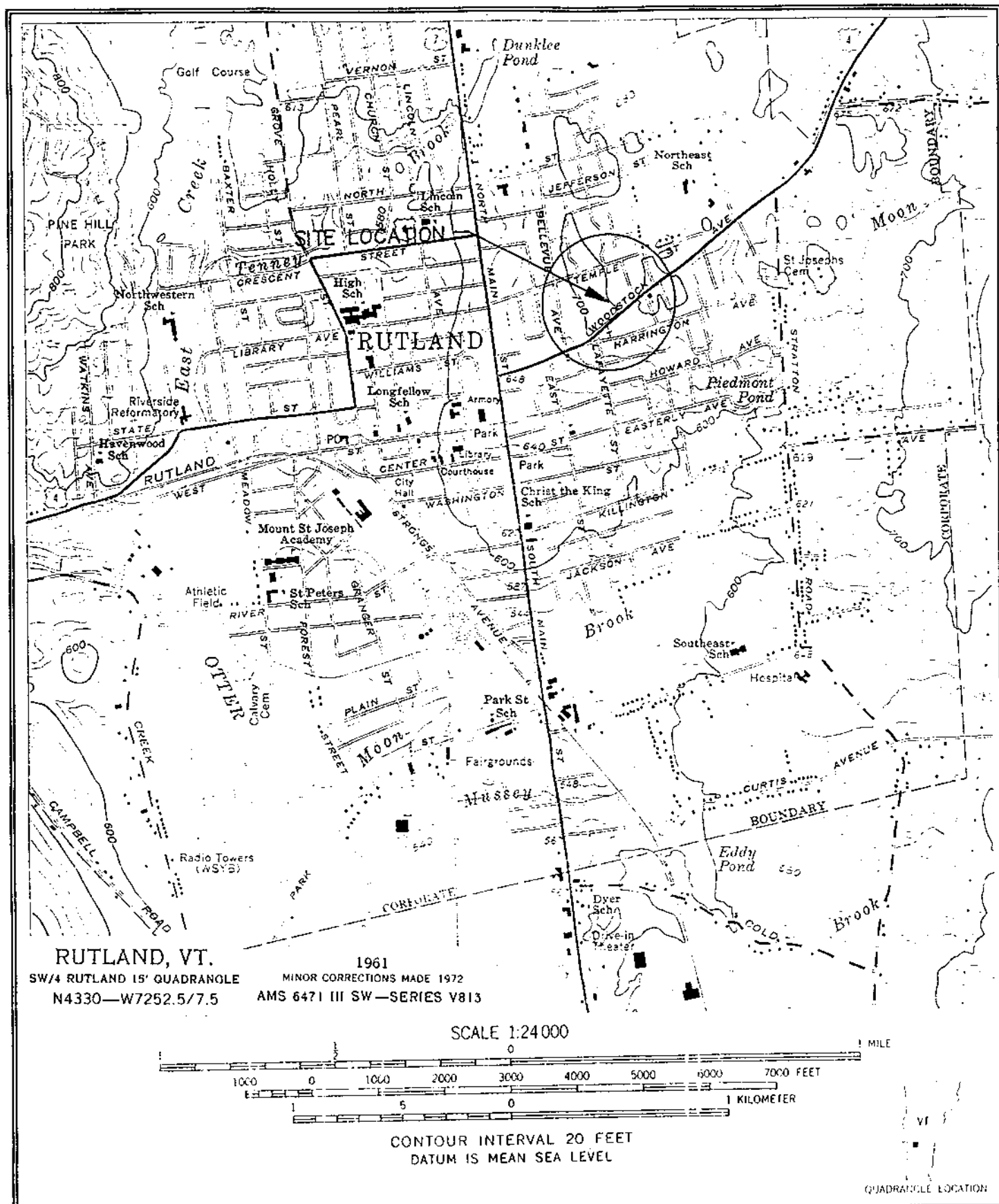


Figure 1 - Site Location Map

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- Records of title searches (See Appendix A).
- Municipal or utility information on subsurface pipes or conduits.
- Water supply well logs and public water supply records.
- Existing geological maps available in the State Geologist's office.
- Soil Conservation Service soils maps.
- United States Geological Service (USGS) topographic maps.
- Vermont Mapping Program orthophotos.
- Town and City records.
- Department of Transportation and Public Works records.
- 1925 and 1971 Sanborn Insurance maps.

The Site is located near the terminal moraine system of the Burlington glacial stade. The Burlington stade was the last large scale advance of continental glacial ice during the Wisconsin Glaciation (about 12,000 years before present). Prior to the Burlington stade, Vermont was covered with ice greater than one mile thick at the Site. Sediments were deposited in the vicinity of the site by the glacier, and by associated lakes, rivers, and outwash fans. These sediments include: Dense silty basal tills; fine grained silt and clay lacustrine deposits; sandy fluvial deposits; coarse grained poorly sorted outwash deposits; and sandy ablation tills. Soils near the Site mapped by the Soils Conservation Service (in Appendix C) include: Georgia Stony Loam; Raynham Silt Loam; and Paxton Silt Loam. The Paxton Series Soils are directly below the Site. All three of these soils are characteristically low permeability sediments.

There are three buildings currently on the Site. One building (77 Woodstock Ave.) is over 85 years old, and is located in the southwest corner of the site (see Attachment 1, Groundwater Contour Map). The front half of this building has been used by Foto-Hut since 1987. The back half of the Foto-Hut building is vacant. The Foto-Hut building has a concrete slab floor, and five foot deep frost walls. The second existing building on the Site (87 Woodstock Ave.) is located on the southeast corner of the site (not shown on Groundwater Contour Map). This 16 year old building houses the Chittenden Bank. The third building is the Chittenden Bank drive-through service structure. Prior to 1925 until sometime after 1971, there was a fourth building located near the northwestern corner of the site. This building was a three car garage. Currently, most of the site is covered by buildings or asphalt. The Foto-Hut Site was used primarily as a laundry and dry-cleaning operation since prior to 1909 until 1970. The laundry was

called Rutland Cleaners and Dyers. Between 1970 and 1977, the Site was vacant. Other businesses have occupied the Foto-Hut building at one time or another, including: The Stitchery; Brownsville Girl Shoe Repair; Accent Realty; Grace A. Land Office; and Vermont Cycle.

Prior to 1925 until sometime before 1971, the southeast corner of the Site was used as a gasoline service station. This station was beneath the present location of the Chittenden Bank. The underground storage tanks were removed during construction of the bank.

The property immediately to the west of the Site (75 Woodstock Avenue) is owned by John Smart Antiques, and is currently being used as an antique store. This structure was built before 1925, and has a cellar in the southeast corner. The Smart building was used as an autobody and lacquer spraying shop (Brigg's Autobody) from before 1925 to 1987.

Across the Street from the Site at 84 Woodstock Avenue is a dry-cleaning and laundry service, Filippo Drycleaners. 84 Woodstock Avenue has been used as a laundry since before 1951. The parcel was also used as a gasoline service station between 1936 and 1951. At least one UST is suspected on the Filippo Cleaners property based on typical dry-cleaning operational practices.

Also across the street from the Site, at 86 Woodstock Avenue, is the H. A. Eddy filling station and convenience store. This property has been used as a filling station since 1982. The property was used as a restaurant prior to 1982. The Eddy property is currently listed as Vermont Hazardous Materials Release Site #93-1413. A subsurface investigation of the Eddy Site revealed extensive groundwater contamination. The contamination included benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl-tert-butyl-ether (MTBE). 1,2-dichloroethylene (1,2-DCE) and perchloroethylene (PCE) have also been detected next to the Filippo Drycleaners at low concentrations in a groundwater monitoring well. The Remedial Investigation Report for the Eddy Site concludes that the source(s) of the contamination are off-site. The implication is that the contamination has migrated by preferential flow in utility trenches and conduits below Woodstock Avenue.

There are eight identified underground storage tanks (USTs) within 1,000 feet of the Foto-Hut Site. Five of these are on the Eddy Site, and are used for storage of kerosine, gasoline, and diesel. Three USTs are located at Bob's Texaco Station (93 Woodstock Avenue), about 300 feet west of the Foto-Hut building. The tanks at the Texaco station are replacements for four tanks removed in 1989. During the removal and replacement work, 120-150 cubic yards of petroleum contaminated soils were excavated from

93 Woodstock Avenue. The Texaco Site has been used as a Texaco Station since 1947.

In 1977 the Chittenden Bank purchased the Foto-Hut Site. In 1990 an inspection of the structure was performed by contractors hired by potential buyers of the property. During the inspection unpleasant odors were reported by the contractors. Samples of soils and the contents of pipes in the building were collected and analyzed in August 1990 by Scitest Laboratories of Randolph, Vermont. The samples contained toluene, ethylbenzene, xylenes, and perchlorethylene (TEX and PCE). The concrete floor of the unused portion of the building was partially demolished during sampling. An investigation of the piping was performed by The Johnson Company, Inc. in November 1990. The investigation confirmed the presence of PCE and TEX contamination in the soils west of and below the building. Numerous pipes outside the western wall of the building were traced and removed during the investigation. An abandoned UST (Tank #1, See Attachment 1) containing TEX and PCE contaminated fill was discovered during the investigation. The HMMD determined that contamination attributable to the UST was eligible for reimbursement by the Vermont Petroleum Cleanup Fund (PCF). Additional soil samples were collected by The Johnson Company on January 15, 1992. Between March 5 and 12, 1992 the UST was removed. During removal, two additional USTs (Tanks #2 & #3) full of TEX and PCE were discovered and removed. Contaminated soils, pipes, and sludge were transported off-site.

In December 1992, a preliminary assessment (PA) of the Site was prepared by the HMMD and submitted to the Environmental Protection Agency (EPA). On July 12, 1993 a second PA was prepared by the HMMD and submitted to the EPA. The July 12, 1993 PA was inaccurate in regards to the number of water supply wells within 0.25 and 0.5 miles of the Site. Two wells have been incorrectly mapped on Harrington Avenue, and the Site location is incorrect (See Attachment F). The locations of these wells were presumably based on unconfirmed well completion files maintained by the Vermont Water Supply Division. Telephone interviews with the well driller, Ottauquechee Drilling of West Bridgewater, Vermont, indicate that the wells were actually installed on Gleason Road, over one mile west of the Site. Therefore, there are no water supply wells identified within one half mile of the Site.

A telephone interview was conducted on November 23, 1993 with Ken Faig, Technical Support person for the International Fabric Care Institute. Mr. Faig provided information on typical machinery and historical operating practices based on descriptions of the tanks, piping, belt drive axle, and other appurtenances on the Site.

Mr. Faig mentioned that petroleum solvents were used exclusively for dry cleaning before 1933. The original use of the tanks was therefore petroleum solvents, since they are hooked to piping which was installed below the concrete floor, which was described on the 1925 Sanborn Maps. After 1933, both PCE and carbon-tetrachloride were typically used in dry cleaning, but petroleum is still being used by many operations today. Mr. Faig thought it very unlikely that PCE was deliberately mixed with the petroleum. He believes that the PCE was hand applied to spots, before the garment was dry cleaned. The PCE would then be extracted from the garment during the cleaning, and end up as contamination in the petroleum tanks. Storage of the PCE would typically be in drums or smaller containers within the building on the concrete floor.

The belt driven petroleum operations typically had four pieces of machinery: A washer, where the petroleum was mixed with the clothes; a centrifugal extractor, where the petroleum was removed from the clothes and sent to a "dirty" tank (note that the extractor needed to be bolted down and that 3/4" bolts were found in the building floor); and a tumbler, where the remainder of the petroleum was removed from the clothes by volatilization (the VOCs were vented to the outside air). The fourth piece of machinery was the vacuum still. The vacuum still was used to recycle the petroleum. Dirty petroleum (containing trace amounts of PCE) from the washers and extractors was piped to the dirty tank. A vacuum was then placed on the entire system, and steam was used to volatilize the petroleum. The volatilized petroleum was collected and returned to a "clean" tank, to be reused in the washer. Note that any leak in the vacuum rendered this system inoperative. The third pipe found in each UST was for drawing the vacuum. Mr. Faig could not think of any other use of a three pipe system other than vacuum still recovery for a petroleum based system. All the piping had to be maintained in a non-leaking condition. The vacuum still also contained a rag separator (water separators had not been invented). The rag separator was filled with rags which collected water and solids from the still. The rags were replaced daily, and were probably washed, dried, and returned to use.

It should be noted that all wiring, machinery etc. needed to be explosion proof inside the building, and therefore, the dry cleaning operation was probably limited to the back room. The steam was probably originally generated using a coal fired furnace, but this may have been upgraded to fuel oil later on. No fuel oil USTs have been discovered at the Site.

3.0 METHODOLOGY AND ACCOMPLISHMENTS OF THE INVESTIGATION

This section describes specific tasks which were performed during the investigation. It also includes detailed descriptions of the methods used, and presents the data collected.

A background investigation was performed which included research of the sources described above in Section 2.0. The results of this investigation are presented in appropriate sections throughout this report. Dig-Safe was contacted prior to initiating any intrusive work on the Site. The existing site-specific health and safety plan (HASP) from the March 1992 UST removal was revised. The HASP complies with the requirements of OSHA regulations 29CFR 1910.120.

The Johnson Company uses Standard Operating Procedures including specific steps for many types of data collection. These procedures have been developed over many years based upon field experience with the instruments and techniques. All field work was performed in accordance with the appropriate standard operating procedure.

3.1 SITE INVESTIGATION

During the Site investigation, potential receptors of atmospheric contamination were identified and evaluated. Currently, the unused portion of the Foto-Hut building is the only identified receptor of atmospheric contamination from the Foto-Hut Site. Volatile organic compound vapor concentrations between 0.2 and 0.4 parts per million (ppm) were measured in the breathing zone with a photoionization detector (PID) in the building on October 7 and 11, and on November 5, 1993. The likely source of these vapors is the contaminated soils exposed by partial demolition of the concrete floor. Given the chemicals present in the soils and groundwater, and the vacancy of the affected portion of the building, these concentrations do not pose an unacceptable risk to human health. Potential receptors of atmospheric contamination include construction workers if the building or asphalt east of the building are excavated. Breathing zone vapor concentrations up to 3 ppm were measured with the PID during drilling east of the building. These concentrations are below the permissible exposure limits for the compounds detected in soil and water samples.

The Site was screened using a metal detector to identify any previously unidentified USTs. Three areas were identified which had positive responses for underground metal objects. In each case, the apparent size of the object was four to six feet in diameter. Two areas with positive responses were in the parking lot behind the Foto-Hut building, and the third was between the Foto-Hut building and the neighboring antique store (See Attachment #1). This third location coincides with the capped termination

of three pipes removed in 1991.

A total of eight soil borings were drilled, and seven monitoring wells were installed on the Site. The boring locations are displayed on Attachment #1 as MW-1 through MW-8 and PZ-1. One piezometer was installed as well. Soil samples were collected continuously during drilling and screened in the field with a PID using the headspace method. Soil samples were collected from the auger blades during drilling to three feet below ground surface (bgs). With the exception of MW-8 and PZ-1, soil samples were collected by split spoon from three feet bgs to the total hole depth. Split spoon samples were collected with a 24" long spoon driven by a 140 pound hammer with a drop of 30 inches. MW-8 and PZ-1 soil samples were collected from the auger flights and by hand auger. A monitoring well was not installed in the MW-6 borehole due to refusal above the apparent water table. Each of the seven wells is between 15 and 20 feet deep. A shallow piezometer, PZ-1, was installed to six feet below ground surface next to MW-1. Deep wells beyond 20 feet bgs were not drilled due to high PID measurements of the soil samples collected during drilling. It was decided in the field that there was a high danger of penetrating a confining layer, and potentially spreading the contamination to an underlying aquifer. A geologic log of each well and boring is provided in Appendix B.

Contaminated soil from drilling with PID headspace measurements above 150 ppm were drummed and temporarily stored on-site. Soil from drilling with PID headspace measurements below 150 ppm was buried on-site near observation well OB-2 which was installed during the UST removal discussed in Section 2.0 (see Attachment #1). Waste water from drilling and well development was discharged to the ground on-site.

All the monitoring wells are constructed of PVC with 5 foot long factory-slotted screens, except the upgradient well MW-4, which has a 10 foot long screen. All the wells are constructed with a locking cap and flush mounted well guard, except MW-8, which is located inside the Foto-Hut building. The annulus of each well was sealed with hydrated bentonite from the top of the sand pack to two feet or less below ground surface. Monitoring wells MW-5 and MW-7 are screened in the upper portion of the surficial aquifer, so that the groundwater level measured on November 8, 1993 intersected the screen. Each well was developed by bailing until dry, or until five well volumes were removed. With the exception of MW-8 and PZ-1, the wells were installed by Tristate Drilling and Boring of Lyndonville, Vermont using an eight inch diameter hollow stem auger. MW-8 and PZ-1 were installed by The Johnson Company using a four inch diameter solid stem auger.

The well locations and elevations were surveyed by The Johnson Company using an autolevel, compass, and tape. The elevations are correlated to an approximate USGS national geodetic vertical datum (NGVD). A site map was prepared on our computer AUTOCAD system which includes a contour map of relative water elevations, site buildings and relevant features, and potential contamination sources and receptors (Attachment #1). Delineations of the contamination plumes are portrayed on Attachments #2, #3, #4, #5, and #6.

3.2 SAMPLING AND CHEMICAL ANALYSIS

3.2.1 Soils

Seven soil samples were collected for volatile organic compound (VOC) analysis by EPA Methods 8010 and 8020. The samples collected for laboratory analysis were those with the highest PID headspace measurements in each boring. A soil sample for laboratory analysis was not collected from MW-2 during this investigation. Numerous soil and tank sludge samples were collected at the Site during previous investigations as well. The soils analytical results are including in Appendix D, and are summarized below in Table 1.

Soils are relatively uniform where undisturbed. The native soil encountered during drilling is primarily a fine sand with 20-30% silt and subangular gravel. This soil has been interpreted to be a native ablation till deposit. A soil with similar grain size characteristics, but containing bricks and debris typically overlies the native material. A clean sand horizon was encountered at depth in well MW-4, and below Tanks #1, #2, and #3. The lateral and vertical extent of this layer has not been determined.

TABLE 1 - ANALYTICAL RESULTS OF SOIL ANALYSIS IN REVERSE CHRONOLOGICAL ORDER

Sample Name	Sample Date	Depth/ Elevation (ft bgs/ FNGVD)	Soil Type/ PID (ppm)	EPA Analytical Method	Toluene (ppb)	Ethyl benzene (ppb)	Total Xylene (ppb)	Other Detected Compounds (ppb)
MW-1	9-30-93	11.5-13.5/ 678.4-676.4	fs,ss,lg /20	8010/8020	<1	<1	2	DL<1
MW-3	9-30-93	6-8/ 683.6-681.6	fs,ss,sg /115	8010/8020	<2	18	29	DL<2
MW-4	10-1-93	14.5-16.5/ 675.4-673.4	fs,lg /7.7	8010/8020	<1.1	<1.1	1	DL<1.1
MW-5	10-1-93	6-9/ 680.6-679.6	fs,as /155	8010/8020	67	560	3,200	DL<56
MW-6	10-1-93	3-5/ 685.5-683.5	fs,ss /250	8010/8020	<66	930	7,200	DL<66
MW-7	10-1-93	7-9/ 681.5-679.5	fs,as, lg /0.6	8010/8020	<1	<1	<1	DL<1
MW-8	10/11/93	5/683.4	ss/250	8010/8020	270	3,800	39,000	DL<270
X1 Tank 1 Contents	3-17-92	10.3-13.8/ 680.7-677.2	fs	8270 8100 8240 8080 8150	ND <500	<500	3,824 m 1,734 o,p 2,090	343 Chrysene 335 Pyrene 1,064 2-Methylnaphthalene 3,321 Naphthalene 335 Phenanthrene 230 ppm TPH <500 Perchlorethylene DL<100 Pest&PCB DL<100 Herbicides
X4 Tank 2&3 Contents	3-17-92	8.6-12/ 682.4-679	sludge	8240	ND <1.26 ppm	ND <1.26 ppm	<1.26 ppm	DL<1.26 ppm
X2	3-17-92	5.8-13/ 685.2-678	fs,ls /101	8240 8080	ND<500	7,831	91,878 m 39,365 o,p 52,513	DL<100 Pest&PCB
Soil #1 Tank #1	3-5-92	3-5/688-686	fs, ss /33	8240	3,490	8,780	58,500 m 23,000 o,p 35,500	6,820 Perchlorethylene DL<1,500

TABLE 1 - ANALYTICAL RESULTS OF SOIL ANALYSIS IN REVERSE CHRONOLOGICAL ORDER								
Sample Name	Sample Date	Depth/ Elevation (ft bgs/ FNGVD)	Soil Type/ PID (ppm)	EPA Analytical Method	Toluene (ppb)	Ethyl benzene (ppb)	Total Xylene (ppb)	Other Detected Compounds (ppb)
Soil #1 Duplicate	3-5-92	3-5/688-686	fs, ss /33	8240	4,160	8,840	58,900 m 26,800 o,p 32,100	7,720 Perchlorethylene DL<1,500
Soil #2 Tank #1	3-6-93	7/684	fs, ss	8240	<1,500	1,569	7,660 m 3,360 o,p 4,300	DL<1,500
Soil #3 Tank#1	3-6-93	9/682	fs, ls	8240	<1,500	1,850	10,840 m 6,540 o,p 4,300	DL<1,500
S 1	1-15-92	0-1/ 688.0-687.0	200	8240 418.1	48	<40	<40	423 Perchlorethylene DL<20 1,000 ppm TPH as Oil & Grease
S 1	1-15-92	2-3/ 686.0-685.0	260	8240 418.1	1,500	5,160	52,600 m 24,700 o,p 27,900	3,550 Perchlorethylene DL<1,000 13,000 ppm TPH
S 2	1-15-92	0-1/ 688.0-687.0	250	8240 418.1	<1,000	<1,000	<2,000	DL<1,000 860 ppm TPH
S 2	1-15-92	1.1-2.2/ 686.9-685.8	285	8240 418.1	<1,000	<1,000	<2,000	DL<1,000 580 ppm TPH
S 3	1-15-92	0-0.92/ 688.0-687.1	210	8240 418.1	<1,000	<1,000	<2,000	DL<1,000 1,500 ppm TPH
S 3	1-15-92	0.92-1/ 687.1-687.0	75	8240 418.1	<1,000	<1,000	<2,000	DL<1,000 <30 ppm TPH
Near Hole (NH)	11-29-90	#5-6/ 686-685		8010/ 8020	2,120	3,850	15,700	420,000 Total Aromatics as Xylene DL<525
B 1	11-29-90	0.58-0.92/ 687.4-687.1		8010/ 8020	4	<2.5	80	1,518 Total Aromatics DL<2.5
B 2	11-29-90	0-0.33/ 688.0-687.7		8010/ 8020	5	<1.9	26	296 Total Aromatics DL<1.9

TABLE 1 - ANALYTICAL RESULTS OF SOIL ANALYSIS IN REVERSE CHRONOLOGICAL ORDER

Sample Name	Sample Date	Depth/ Elevation (ft bgs/ FNGVD)	Soil Type/ PID (ppm)	EPA Analytical Method	Toluene (ppb)	Ethyl benzene (ppb)	Total Xylene (ppb)	Other Detected Compounds (ppb)
B 3	11-29-90	0 -0.33/ 688.0-687.7		8010/ 8020	112	<1.8	110	3,335 Total Aromatics DL<1.8
B 4	11-29-90	0 -0.33/ 688.0-687.7		8010/ 8020	<3.1	<3.1	<3.1	<31 Total Aromatics DL<3.1
B 5	11-29-90	0 -0.33/ 688.0-687.7		8010/ 8020	10	11	61	436 Total Aromatics DL<2.1
B 5	11-29-90	2.33-2.67/ 685.7-685.3		8010/ 8020	2,073	1,590	2,410	115,000 Total Aromatics DL<691
B 6	11-29-90	0 -0.33/ 688.0-687.7		8010/ 8020	<2.7	<2.7	<2.7	<27 Total Aromatics DL<2.7
B 7	11-29-90	0 -0.33/ 688.0-687.7		8010/ 8020	12,300	1,400	31,900	351,000 Total Aromatics DL<139
B 7	11-29-90	1.67-2.0/ 686.3-686.0		8010/ 8020	3,170	2,500	54,100	359,000 Total Aromatics DL<265
B 8	11-29-90	0 -0.33/ 688.0-687.7		8010/ 8020	211	<178	<178	3,140 Total Aromatics DL<178
B 8	11-29-90	0.58-0.83/ 687.4-687.2		8010/ 8020	<2	<2	<2	<20 Total Aromatics DL<2
O 1	11-29-90	≈3/688		8010/ 8020	32,700	69,500	189,000	4,030,000 Total Aromatics 4,350 1,2 Dichloroethylene 742 Benzene DL<219
O 2	11-29-90	0.5/690.5		8010/ 8020	1,408	<179	1,530	36,300 Total Aromatics DL<179
O 3	11-29-90	≈2/689		8010/ 8020	18,800	56,300	199,000	4,790,000 Total Aromatics DL<1,400
O 4	11-29-90	2/689		8010/ 8020	<2.6	<2.6	<2.6	<26 Total Aromatics DL<2.6
O 5	11-29-90	≈2.5/688.5		8010/ 8020	<2.7	<2.7	<2.7	<27 Total Aromatics DL<2.7

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Sample Name	Sample Date	Depth/ Elevation (ft bgs/ FNGVD)	Soil Type/ PID (ppm)	EPA Analytical Method	Toluene (ppb)	Ethyl benzene (ppb)	Total Xylene (ppb)	Other Detected Compounds (ppb)
O 6	11-29-90	≈4/687		8010/ 8020	3	<2.4	10	192 Total Aromatics DL<2.4
Soil F	8-15-90			8010/ 8020	Inter- ference	Inter- ference	Inter- ference	>143 ppm Total Aromatics 238 Perchloroethylene DL<5
Soil C	8-15-90			8010/ 8020	<3	<3	<3	DL<3

Key: fs = fine sand, ss = some silt, lg = little gravel, as = and silt, ls = little silt, DL = detection limit for PCE.

TPH = total petroleum hydrocarbons as oil and grease.

3.2.2 Water

One round of water samples was collected from all of the monitoring wells, including one existing observation well (OB-1) installed during the UST removal. The samples were analyzed using EPA Methods 601 and 602, or 8240 for VOCs. Groundwater samples were collected by a qualified Johnson Company Site Technician and analyzed at Industrial and Environmental Analysts (IEA) in North Billerica, Massachusetts. All sampling was performed in accordance with EPA's "RCRA Groundwater Monitoring Technical Enforcement Guidance Document". Sample collection included preparation of a trip blank, a field blank, and a duplicate of the MW-3 sample. These three samples were used for quality control and quality assurance (QA/QC) purposes. Due to refusal above groundwater, no sample is available for MW-6. Water samples and product samples have been collected from the Site in the past. The analytical results are included in Appendix D, and a summary is provided in Table 2 below.

The enforcement standards for 1,2 DCE and xylenes were exceeded in the groundwater based on the analytical results of sample from wells MW-8 and OB-1. No groundwater contamination was detected in any other well except 5 ppb of 1,1,1-Trichloroethane (TCA) in well MW-4. This concentration is at the method detection limit, and is the only documented occurrence of TCA on the Site.

**TABLE 2 - ANALYTICAL RESULTS OF GROUNDWATER AND PRODUCT SAMPLES AND
WATER ELEVATIONS IN REVERSE CHRONOLOGICAL ORDER**

Well Name	Sample Date	Water Level (feet below top of casing)	Method	Toluene (ppb)	Ethyl benzene (ppb)	Total Xylene (ppb)	Other Detected Compounds (ppb)
MW-1	10-12-93	4.86	601/602	<1	<1	<1	DL<1
MW-2	10-12-93	3.84	601/602	<1	<1	<1	DL<1
MW-3	10-12-93	4.97	601/602	<1	<1	<1	DL<1
MW-3 Dup.	10-12-93	4.97	601/602	<1	<1	<1	DL<1
MW-4	10-12-93	4.39	8240	<5	<5	<5	5 1,1,1-Trichloroethane DL<5
MW-5	10-12-93	4.98	8240	<10	<10	<10	DL<10
MW-7	10-12-93	4.84	601/602 8240	<1 <5	<1 <5	<1 <5	DL<1 DL<5
MW-8	10-12-93	5.47	8240	<100	<100 (Est.60)	620	430 1,2 Dichloroethene DL<100
OB-1	10-12-93	6.78	601/602	8	60	560	61 cis-1,2- Dichloroethene DL<5
OB-1	9-21-92		601/602	59	144	1,240	268 cis-1,2- Dichloroethylene
Tank #2 Contents	3-6-92		8240	643ppm	985ppm	5,100ppm m 2,290ppm o,p 2,810ppm	1,030 ppm Perchloroethylene DL<1,250
Tank #3 Contents	3-6-92		8240	570ppm	908ppm	4,810ppm m 2,280ppm o,p 2,530ppm	848 ppm Perchloroethylene DL<1,250
Tank #1 Contents	11-29-90		601/602	384	241	5,900	DL<10
Tank #1 Excavation	1-15-92	≈4.5	8240	<150	<150	1,256 m 686 o,p 570	DL<150
Pipe H	8-15-90		8010/8020	Inter- ference	Inter- ference	Inter- ference	137 ppm Perchloroethylene
Pipe I	8-15-90		8010/8020	Inter- ference	Inter- ference	Inter- ference	<50 ppm Perchloroethylene

Key: DL indicates the practical method detection limit for PCE after dilution of the sample.

Subsurface mobility characteristics of the five major contaminant constituents have been evaluated. The non-aqueous phase liquid (NAPL) mobility is controlled by a number of factors including: sorption to organic carbon, dispersion, viscosity, porosity, biodegradation, groundwater velocity, solubility, and volatilization. Presented in Table 3 below are relative comparisons of mobility factors between benzene, toluene, ethylbenzene, xylenes, perchlorethylene, and 1,2-dichloroethylene.

Typical biodegradation of PCE occurs in a six step process. PCE degrades slowly to Trichloroethylene (TCE), which quickly degrades to cis-1,2-Dichloroethene (cis-1,2-DCE), which degrades to trans-1,2-Dichloroethene (trans-1,2-DCE), which degrades to 1,1-Dichloroethylene (1,1-DCE), which degrades to vinyl chloride. PCE was detected in the product samples from tanks 2 & 3, as well as in the soils from tank #1, and in soils and pipes inside the building. However, TCE and 1,2-DCE were not detected in these samples. TCE has not been detected on-site. Cis and Trans-1,2-DCE have been detected in soils and groundwater downgradient of the tanks (Out-1, OB-1 and MW-8).

The non-detection of VOCs reported in the analytical results of the MW-5 water sample are not as expected. The analytical and PID measurements of the soils at the bottom of the boring showed significant VOC contamination (3,200 ppb xylenes, 560 ppb ethylbenzene, 67 ppb toluene, and 155 ppm PID soils headspace). A PID headspace measurement of the well on November 5, 1993 showed 35 ppm VOCs in the well annulus. The water quality results were double checked by IEA upon the request of The Johnson Company.

One explanation for the absence of any detectable VOCs in the sample is that water from the overlying gravel layer flowed into MW-5 after purging. However, if this were the case, one would expect the water level in MW-5 to be somewhere within the gravel layer. The water level in MW-5 has been continuously observed to be about two feet below the base of the gravel, and has been bailed dry on two occasions. A second hypothetical explanation is a preferential pathway, possibly a coarse grained lens, which is supplying water to MW-5. This water presumably would not have sufficient contact time with contaminated soils to dissolve the contaminants. If this were the case, we would have seen the lens during the continuous split spoon sampling. In addition, this would imply that the contaminant transport leading to the contaminated soils was not through groundwater. A third possibility is that recharge to the well is from a lower aquifer through the bottom of the sand-pack. This recharge would occur preferentially through a thin aquitard below the bottom of the well after purging, rather than from the contaminated soils around the well annulus. This hypothesis is supported by the observed presence of a lower sandy

aquifer in monitoring well MW-4. The recharge would presumably be fast enough that the relatively insoluble compounds such as xylenes would not be dissolved into the recharging groundwater.

We cannot discount the existence of perchlorethylene DNAPL pools. However, observations of the free product in tanks #2 & #3, and free product removed from MW-6 soil samples, did not show a sinking portion. Preferential enrichment of unsaturated soils below the building by PCE can be expected due to volatility differences in the compounds. Stripping of toluene by dissolution into groundwater can be expected to cause relative depletion of toluene in saturated soils. Continuous bleeding of 1,2-DCE into the aquifer from PCE contaminated soils is expected.

TABLE 3. RELATIVE MOBILITY OF VARIOUS COMPOUNDS										
Compound	Molecular Weight	Specific Gravity (a 20°C)	Viscosity (cp a55°F)	Solubility of pure product in Water (mg/l a20°C)	Sorption (log KOW/KOC)	Volatility Henry's Law Constant (atm-m ³ /mole)	Bio-degradation Potential	Relative Mobility of NAPL	Relative Mobility by Vapor Phase	Relative Mobility by Dissolved Phase
Benzene	78.11	0.8786	0.724	1780 Most soluble	2.12/1.69 Low Sorption	0.00555	Slow	Mobile	Mobile	Highly Mobile
Ethylbenzene	106.17	0.867	0.746	152	3.15/--- High sorption	0.00644	Rapid	Second Least Mobile	Second Least Mobile	Second Least Mobile
Toluene	92.1	0.867	0.649	515	2.56/2.06	0.00664	Rapid	Mobile	Mobile	Mobile
Xylenes ortho meta para	106.17 106.16 106.17	0.88 0.864 0.86	0.682	175 --- ---	2.95/2.11 --- --- High sorption	0.00527 0.00255 0.00251 Least Volatile	Rapid	Mobile	Least Mobile	Mobile
Perchloroethylene	165.8	1.626 Most Dense	0.958 Most Viscous	150 Least Soluble	2.6/2.42	0.0287 Most Volatile	Slow	Least Mobile	Highly Mobile	Least Mobile
1,2-Dichloroethene	96.95	1.26-1.28 Dense	0.40 a20°C Least Viscous	700-800 Second Most soluble	--/0.70-0.48 Least sorption	0.00532-0.0066	Slow	Highly Mobile	Mobile	Highly Mobile
Log KOW/KOC from Montgomery J. H. and Welton L. M. 1990; "Chemical Desk Reference" Henry's Law Constant from Appendix A EPA 450/3-85-007 Biodegradation susceptibility from Howard, P. H., 1990; "Handbook of Environmental Fate and Exposure Data for Organic Chemicals" All other data from Verschuieren, Karel, 1983; "Handbook of Environmental Data on Organic Chemicals" Key: cp = centipoise. KOW = octanol water partitioning coefficient. KOC = Carbon Absorption Isotherm Slope										

3.3 WATER ELEVATIONS

Groundwater levels in the wells were measured on several occasions. Water level data is presented in Appendix E, and a contour map of adjusted water elevations is included as Attachment 1. Water level measurements were performed using a Solinst water marker. One round of measurements on October 11, 1993 was performed using an interface probe. No NAPLs were detected in any of the wells. Measurements are made in reference to the top of PVC casing in each well. The water markers were decontaminated with a soapy wash and rinse between wells.

It rained on-site on November 5, 1993. There was an increase in the water elevations in nearly all the wells between November 5 and November 8 by 0.1 to 0.2 feet. The water level in OB-1 remained level over that period, and in MW-8 the water level increased by a foot. This may have been due to a slug of rainwater infiltrating west of the Foto-Hut building, and migrating eastward under the building. If this is the case, two characteristic effects should be observable:

- Temporal changes in water quality due to changes in residence time
- Highest contaminant concentrations in groundwater after a long dry period

A downward vertical hydraulic gradient has been measured at the Site. The vertical hydraulic gradient between wells MW-1 and PZ-1 was 0.052 ft/ft downward on November 8, 1993. A similar downward gradient has been measured in a well nest located on the Eddy Property, south of the Site. All water level measurements were normalized to a 680 foot elevation prior to preparing a contour map. Calculations of the normalization procedure are included in Appendix E.

Groundwater flow in the surficial aquifer below the Site is primarily towards the south and east. The gradient and flow direction is strongly controlled by the availability of recharge from precipitation, as well as by the hydraulic conductivity of the aquifer. Low hydraulic gradients are observed beneath the asphalt parking lots due to a gravel sub-base and the absence of infiltration. A groundwater high is observed northwest of the Foto-Hut building due to recharge through the lawn from infiltration. A high hydraulic gradient is observed on the western edge of the Foto-Hut building due to "ponding" of the infiltration water behind the frost walls and to the lack of infiltration below the building. Local depressions in the groundwater table are observed near storm drains, even though the drains do not appear to intersect the groundwater table.

3.4 CONTAMINANT MIGRATION

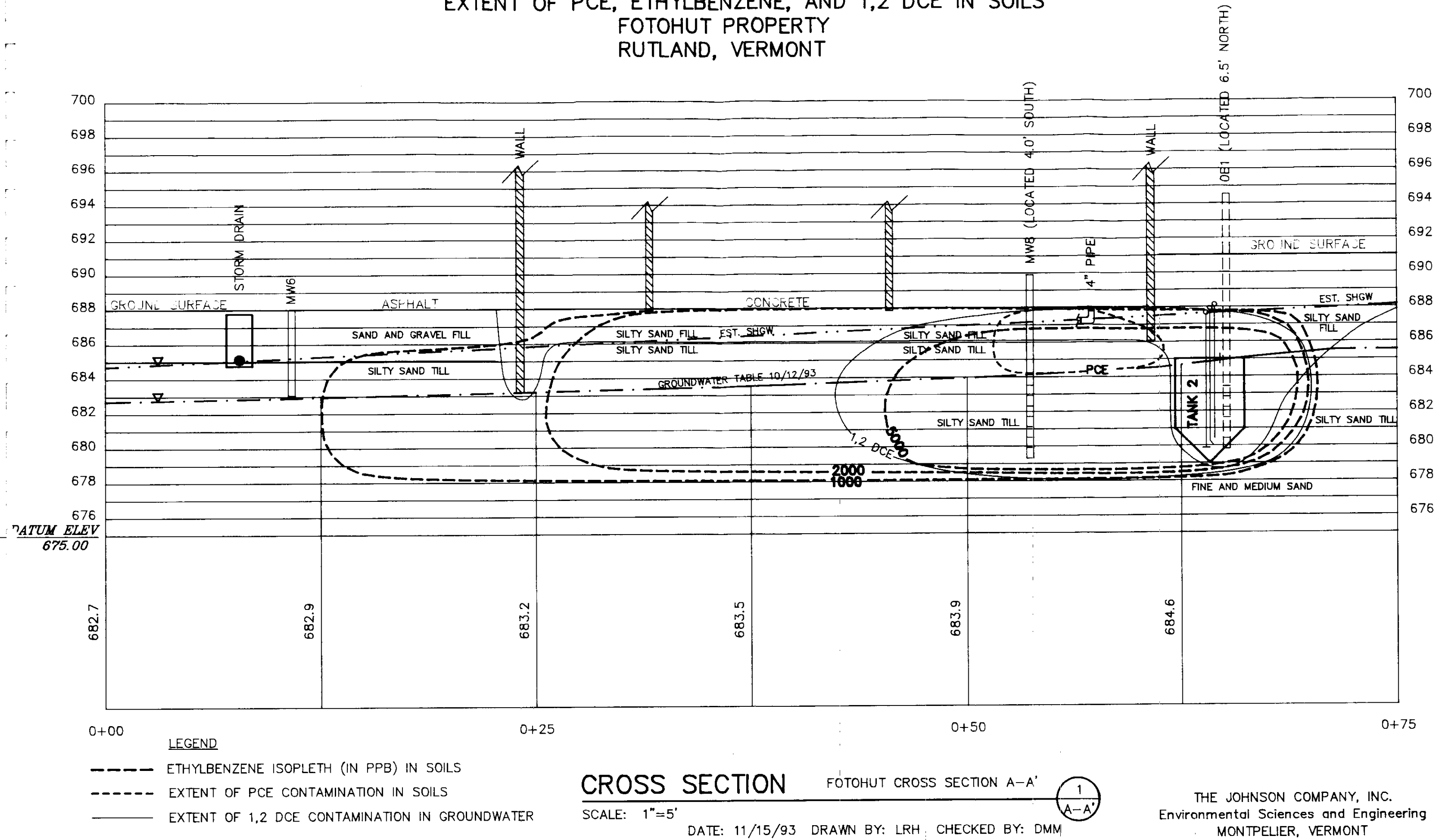
Observed contaminant distributions in the soils and groundwater appear to correlate generally with a hypothetical logarithmic distribution. A logarithmic elliptical decrease in concentration is generally correlated with an increase in distance from the sources. The length and breadth of the ellipse is dependant on groundwater velocity and chemical specific transport characteristics.

Pipe sources have probable leakage locations at knuckles and junctions. This will generate characteristic patterns of isolated pockets of contamination. Due to relative volumes of contaminants released, contamination generated from a leaky pipe is likely to be much smaller in areal extent than that generated by the tanks.

The measured concentration of contaminants in soils samples is highly variable. Samples from the same location, but collected at different times, sometimes have different concentrations. Samples taken at different depths at the same location may give widely different contaminant concentrations. Therefore, considerable judgement was required in preparing the isopleth contour maps presented in Attachments 2 through 6. The Cross Section, Figure 2, also displays some isopleths. The section and maps are based on arbitrary judgements of the representativeness of each data point and application of the hypothetical distribution described above. For instance, the maps of toluene, xylene, and ethylbenzene soil concentrations were based on data excluding points less than one foot deep. It was determined that the shallow soil samples (less than 1 foot bgs) were typically much less contaminated than deeper samples (1-3 feet bgs) at the same location. A map based on the shallow clean samples would be inaccurate in assessing the probable extent of maximum soil contamination. Similar judgement used in other aspects of mapping are included on the appropriate maps.

Soil contamination east of the building appears to be limited to below 3 feet bgs. The upper three feet of soil is a coarse grained sub-base for the parking lot. PID headspace measurements of the coarse grained soils did not detect VOC contamination. This phenomena is probably due to the low residual saturation capacity of the gravels, and possible to passive venting of the gravels by the storm drain network and trenches.

FIGURE 2.
EXTENT OF PCE, ETHYLBENZENE, AND 1,2 DCE IN SOILS
FOTOHUT PROPERTY
RUTLAND, VERMONT



Soils inside the building are contaminated with VOCs above the apparent seasonal high groundwater table (SHGW). One probable migration mechanism is volatilization from a NAPL pool. The concrete floor and frost walls of the building act as a trap for VOC vapors. The vapors probably condense below the frozen soils and unheated floor during the winter time, and drip back down to groundwater. This percolation has left a residual saturation of contaminants above the SHGW. If this scenario is correct, the soils contamination will be relatively evenly spread in the soils above the NAPL.

A second probable mechanism of contamination migration is long term slow leakage from the process pipes. This mechanism is supported in specific locations by "hot spots" in the shallow soils. Migration through subsurface pipes and preferential conduits is another potential pathway. The storm drains are a potential receptor of any contaminated groundwater migrating below the Foto-Hut building. The storm drain system was installed prior to 1959, and empties into the Rutland sanitary sewer.

A four inch diameter iron pipe was discovered in the floor of the Foto-Hut building. The top of the pipe was flush with the floor, and there was no evidence of grates or other construction typical of a floor drain. The four inch pipe makes a right angle bend immediately below the concrete floor. The iron pipe is then connected to a four inch clay or concrete pipe which travels horizontally below the floor in a southeast direction. The connection is loose, and soil has entered the pipe. A PID measurement performed on November 5 gave a 42 ppm headspace in the pipe. The flush geometry of the pipe penetration is not typical of either a sanitary sewer connection or a floor drain. The most likely use of the pipe would be a drain from a specific piece of equipment.

Piping inside the Foto-Hut building is primarily placed directly below the concrete floor. The floor thickness varies from 4 inches to one foot. The 1 to 2" diameter pipes typically have threaded couplings, bushings, etc. where they penetrate the floor. The concrete floor was in place prior to 1925 per the Sanborn insurance maps.

Some chemical specific observations are provided below:

PCE and 1,2 DCE

There has been limited migration of NAPL/Dissolved PCE.

1,2-DCE may be a daughter or a contaminant of the original solvent.

PCE concentrations in soils exceed Interim Soil Cleanup Guidance (ISCG) levels of 20 times the Enforcement Standards (ES = 0.7 ppb) in groundwater.

PCE has not been detected in groundwater on-site.

1,2-DCE concentrations in groundwater are above the ES of 70 ppb below the Foto-Hut building.

Widely disparate soil concentrations are reported for MW-8 and S-1 samples. This may be due to natural soil and sampling variability, or to volatilization after penetration of concrete.

The PCE plume in soils appears to have moved slightly downgradient from the tanks.

Migration of PCE and 1,2-DCE is primarily by volatilization/condensation over NAPL pool.

TOLUENE

Apparently there are two sources: Pipe I, and the USTs.

Migration is probable by all three phases.

The ES and ISCG level are not exceeded in water or soils respectively.

ETHYLBENZENE

The ES has not been exceeded in groundwater.

The ISCG level is exceeded in soils in the UST area and under the building.

XYLENES

The ES of 400 is exceeded inside building and at former UST locations.

The ISCG level of 8000 is exceeded near the UST area and under the Foto-Hut building.

There appear to be two sources: Pipe I, and the USTs.

Water quality results at MW-5 are questionable.

Migration is primarily by free product phase, and less by dissolved or vapor phases.

Based on only two measurements, the xylene concentration in groundwater has decreased in OB1 in 11 months, as have ethylbenzene and toluene concentrations. This is probably due to removal of the source, or could be seasonal (or precipitation related).

3.5 SOURCES OF CONTAMINATION

A list of proven and suspected sources is provided in this Section. Proven sources are documented by laboratory analysis of contaminated soils and product samples. Suspected sources are based on PID measurements and association with proven sources.

Five primary sources have been demonstrated to have caused a release of hazardous materials to the Site:

1. Leaks from pipes - at soil sample B5 by toluene concentration in soils.
2. Tank #1 by PCE/TEX in soils and contents. No lid to tank.
3. Tanks 2 and 3 by Ethylbenzene, xylenes and PCE in soils and contents. Holes in tank lids.
4. Capped pipes 1, 2 and 3 by TEX in Soils (sample O1) (Pipe locations included in Appendix 1).
5. Pipes I & J - PID 19.5/7 - Pipe sample and B3 soil sample confirms release of PCE and TEX.

Suspected sources of additional releases are listed below:

1. Suspected UST near end of Pipes 1,2 and 3.
2. 4" drain - PID of 42 ppm.
3. Pipes A & K - PID 42 ppm.
4. Pipe C - PID 16 ppm.
5. Pipes F, G, & E - 10 ppm.

3.6 CONCEPTUAL REMEDIAL DESIGN

Numerous remedial options were considered for this Site. Remediation of the Site at this time will concentrate on soils contaminated above regulatory guidelines. There are no documented enforcement standard exceedances beyond the property line which are attributable to the Foto-Hut Site. Therefore design of a groundwater treatment system should not occur at this time.

Soil remedial measures may be warranted due to the risk of contamination of groundwater from the residual levels of contamination in the soils. Soil contamination above Interim Soil Cleanup Guidance limits has been demonstrated in the vicinity of the removed USTs and under the un-used portion of the Foto-Hut building.

Vapor extraction and treatment can be an effective method of soil remediation. In-situ treatment would use vapor extraction with activated carbon adsorption on the vapor phase end of the system. Activated carbon which becomes saturated with contaminants removed from the soil vapors could then be "reactivated" or recycled, thus provided a "closed loop" remedial system with the added benefit of incineration for the final disposition of the collected contaminants. Vapor extraction is most effective with highly volatile compounds and permeable soils. The low permeability soils below the Foto-Hut site, combined with the shallow depth to groundwater, may limit the effectiveness of vapor extraction. Vapor extraction technology should be investigated further if additional data indicates that the soils below the southern portion of the Foto-Hut building are contaminated above regulatory guidelines.

Natural or enhanced biodegradation is sometimes used for in-situ treatment of contaminated soils. However, biodegradation of PCE often creates daughter products which are lethal to the degrading organisms. In addition, enhancement of biodegradation requires "feeding" of the degrading organisms. This feeding requires injection and adequate dispersal of nutrients into the soil. Adequate dispersal of the nutrients is not likely given the low permeability of the soils on-site.

Removal of contaminated soils by excavation, and transport off-site for disposal appears to be the most feasible option for soils remediation. Air quality standards could be maintained during removal by adequate ventilation of the existing un-used Foto-Hut building. Treatment of the collected vapors by carbon absorption may be necessary. The removal could coincide with excavations of contaminated piping and suspected USTs. It may be feasible to dispose of the excavated soils at an asphalt batch plant. Otherwise, soil disposal will be in a certified landfill. It may be necessary to install slurry walls to contain inaccessible pockets of residual contamination.

In conjunction with soil removal, we recommend the placement of a barrier against physical contact and infiltration. This would consist of backfilling and paving the areas from which contaminated soils were removed. Demolition of the un-used portion of the building and paving the area could be performed by non-OSHA trained personnel after the soil excavation was complete.

4.0 RESULTS, CONCLUSIONS, AND INTERPRETATIONS

Most of the interpretations in this report should be treated as current working hypothesis, which will be confirmed based on data collected during the detailed remedial investigation and action design.

Groundwater flow in the surficial aquifer is towards the south and southeast. Groundwater flow directions and gradients are strongly influenced by infiltration in un-paved areas. The vertical gradient in the surficial aquifer is downwards.

Soils are typically low permeability sands with a large percentage of silt and gravel. Numerous preferential migration pathways may exist. These pathways may include the storm drain system and process pipes below the concrete floor of the building.

Five contaminant release sources have been confirmed at the Site. These source locations include three former USTs and two pipe locations. A large proportion, if not all of the contaminated soils and

groundwater on-site is due to releases from the USTs and their associated piping. Observations of NAPL collected in tanks indicate that it is less dense than water.

Based on the data provided by the International Fabric Care Institute, and on the geometry of the USTs and piping, the remedial costs associated with this site are eligible for reimbursement through the Vermont Petroleum Cleanup Fund (PCF). The dry cleaning operation was primarily a petroleum based technology. Perchloroethylene was probably only used for cleansing spots, and is a contaminant, rather than a primary constituent of the tank and pipe contents. VSA Title 10, Chapter 59, §1922(10) defines an underground storage tank. This definition states that the underground pipes connected to the tanks are included in as part of the UST. VSA Title 10, Chapter 59, §1926 authorizes reimbursement of abandoned UST closure under certain conditions. These conditions have been met, as documented in Charles Schwer's October 28, 1991 letter to Michael Pottinger of The Johnson Company. All tank removal, and sludge and soil disposal actions have been pre-approved by the Sites Management Section (SMS), and are eligible for reimbursement by the PCF. This investigation and its associated work plan were also approved by the SMS and are eligible for reimbursement.

The groundwater is locally contaminated at wells MW-8 and OB-1 above enforcement standards by xylenes and 1,2-dichloroethylene. There is no evidence that enforcement standards have been exceeded beyond the property line due to releases on-site.

The soils are contaminated above Vermont Interim Soil Cleanup Guidance (VISCAG) limits by ethylbenzene, xylenes, perchlorethylene, and probably 1,2-dichloroethylene. With the exception of the xylenes, this contamination above the ISCG limits is only in the vicinity of the former USTs and the western section of the Foto-Hut building. Toluene is also present in the soils at relatively low concentrations.

High benzene and MTBE concentrations in groundwater at the Eddy Site, and the lack of these compounds at the Foto-Hut Site indicate that the Foto-Hut Site is not the source of the contamination below the Eddy Site. The two Sites exhibit different chemical signatures. Xylene in groundwater at the Eddy Site is always associated with MTBE and Benzene, which are not found at the Foto-Hut Site. Very low concentrations, 1 ppb of 1,2 DCE, and 2 ppb of PCE were measured in water samples from MW-102 on the Eddy Site. These compounds are probably due to a nearby source, rather than the Foto-Hut Site. Monitoring wells MW-7 and MW-103 are both between known Foto-Hut sources and well MW-102. A water sample collected from MW-7 is clean, and samples from MW-103 did not have detectable levels of

PCE or 1,2 DCE.

The Johnson Company recommends preparation of a remedial investigation and design work plan. The work plan should include the following tasks:

- Determine temporal changes in water quality by monitoring groundwater and storm drains quarterly for at least one year. Laboratory analysis should be by EPA Method 8240 with 5 ppb detection limits.
- Determine extent of xylene contamination in soils and groundwater by the installation of additional wells, and collection of additional soils samples.
- Evaluate suspected sources by removal of interior pipes with concurrent soil analysis by PID.
- Evaluate suspected UST locations by excavation.
- Remove contaminated soils below and west of un-used portion of Foto-Hut building and treat off-site. *Presumed UST location*
- Evaluate in-situ soil venting below used portion of Foto-Hut building if soils sample analysis indicates exceedances of VISCG limits.
- Demolish un-used portion of Foto-Hut building and pave former UST and building locations to prevent infiltration and physical contact with residual contamination.
- Interview previous employees of Rutland Cleaners and Dyers

APPENDIX A
Property Ownership Records

77 WOODSTOCK AVE
TOWN AND CITY PROPERTY OWNERSHIP RECORDS

BOOK	PAGE	DATE	TRANSFER NOTES
189	501-503	10-14-76	Rutland Savings Bank to The Daniels Corp.
188	149	10-14-76	First VT Bank to Rutland Savings Bank (A parcel of land on NW corner, Woodstock Ave. and Tremont)
176	410-411	12-16-74	Bratco, Inc. to First Vermont Bank & Trust Co.
147	321	5-15-69	Saverio J. Garafano etal to Bratco Inc. (Lots 43,44,45,46 on Montvert Park), Saverio J. Garafano and Pasquale J. Garafano
113	75	2-8-62	Register New Business - Garos Cleaning & Laundering Center (Cleaning & Laundering)
131	339-340	6-2-60	Pasquale J. & Saurio S. Garofano to Rutland Housing Authority (Lots 47, 48 & 49 as shown on Map of Montvert Park) and land sold to Garafano's by Marie T. Pate
112	320	6-2-60	Marie T. Pate to Garafano's (property bounds Briggs Autobody Shop) Lots 46 & 54 Montvert Park, etc. made by A.C. Grover, C.E.
107	161	5-7-57	Guardian's Deed - Frank P. Garofano, guardian of Luigia Garafano to Pasquale & Saverio J. Garafano

77 WOODSTOCK AVE
TOWN AND CITY PROPERTY OWNERSHIP RECORDS

BOOK	PAGE	DATE	TRANSFER NOTES
99	454	6-16-55	Antonio & Luigia Garafano to Saverio J. & Pasquale J. Garafano - Property bounds south - Woodstock Ave. east - Tremont St., north land of Lonis M. Gagnon, west property of Frank E. Briggs and land of Marie T. Pate
55	290	7-17-31	Lease between Antonia Garofano & Shell Eastern Petroleum Corp. - 5 year lease - Begin 40 ft. west of Tremont & Woodstock (essentially appears on western corner of Woodstock & Tremont) Rent is 1 cent per gallon gasoline delivered to storage tanks on leased property.
45	143	7-12-26	Antonia, Ralph & Joseph Jennings to Antonia * Louise Garafano (Lots 47, 48, 49 - Lots 45,46 of Montvert Park)
36	306	11-20-19	Henry D. Whitney to Antonio Garofano (Lots 43 & 44 Montvert Park)
Hanging Map 215	37	8-15-13	Monvert Park Building Lots Aug. 1913 Harry D. Whitney Owner, The Foto Hut site appears to be Lots 43, 44, 45 and possibly 46

84 WOODSTOCK AVE
TOWN AND CITY PROPERTY OWNERSHIP RECORDS

BOOK	PAGE	DATE	TRANSFER NOTES
286	341	6-30-89	Page 343 Mortgage Deed - Alan H. Perry & Ann Perry to John F. & Donna Haynes - Lots 3 & 4
151	573	5-8-70	Axel J. & Jane O. Anderson to Alan H. Perry & Ann Perry
90	1	9-17-49	Fred R. & Marjorie E. Hudson to Axel & Jane Anderson
73	395-396	1-10-46	Lot 3 & 4 of Harris Property Building Lots of H.D. Whitney, October 1913 - Ward Baking Company to Fred R. Hudson, Parcel is a part of the land conveyed by Grace O. Brien to Vermont Banking Co. (9-10-41) Book 66, page 67 - subsequently granted from Vermont Baking to Ward Baking, Book 73, page 201
60	179	4-16-35 to 12-15-45	Land leased by Sinclair Refining Co.
73	201	6-7-45	Vermont Baking to Ward Baking - Lots 3 & 4
66	467	9-19-41	Grace O'Brien Coughlin to Vermont Baking Company - Lots 3 & 4 - Subject to a certain lease between Grace O'Brien Coughlin and Sinclair Refining Co.
60		4-16-35	Service Station Lease between Frederick E. Coughlin & Grace E. Coughlin of 82 Woodstock Avenue & Sinclair Refining Co. - Oil and gasoline station
52	431	7-6-33	Raffael Abatiell to Frederick & Grace O'Brien - Lots 3 & 4
45	337	5-7-27	Lucy E. Alberico to Raffael Abatiell
36	309	12-13-19	Henry D. Whitney to Lucy F. Alberico

1991 JOHNSON CITY DIRECTORY
US WEST MARKETING RESOURCES
JOHNSON DIRECTORY DIVISION

DATE	ADDRESS	OCCUPANT
1991	75 Woodstock Ave. 76 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Park Antiques Sherwin Williams Foto Hut - also The Stitchery Brownsville Girl Shoe Repair Filippo Cleaners & Tailors H.A. Eddy Chittenden Bank Cinema North Group Couture & Co. Bob's Texaco
1987	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Curious Eye World of Sweaters Park Antiques Foto Hut Automatic Laundry & Dry Cleaners Diamond Uniform Snow White Linens Eddy Niko's Restaurant US Post Office Chittenden Bank Cinema North Couture Co. Bob's Sunoco
1986	77 Woodstock Ave. 87 Woodstock Ave.	Mannings Chittenden Bank
1985	77 Woodstock Ave. 75 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Mannings Same as 1987 Automatic Dry Cleaner H.A. Eddy Chittenden Bank Bob's Sunoco
1984	77 Woodstock Ave. 75 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Same as 1985 Brigg's Autobody Shop Automatic Dry Cleaners H.A. Eddy Same as 1985 Bob's Texaco

1991 JOHNSON CITY DIRECTORY
US WEST MARKETING RESOURCES
JOHNSON DIRECTORY DIVISION

DATE	ADDRESS	OCCUPANT
1983	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Brigg's Autobody Shop Grace A Land Office Automatic Dry Cleaners H.A. Eddy Rutland Bank Bob's Sunoco
1982	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Same Vacant Perry's Automatic Laundry & Dry Cleaners H.A. Eddy (Under Construction) Rutland Savings Bank, Real Estate Bob's Texaco
1981	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Same Same Same No Report Same Same
1980	Same except 86 Woodstock Ave. is a residence	
1979	Same	
1978	Same except 87 Woodstock Ave.	Vacant
1977	Same except 77 Woodstock Ave. 86 Woodstock Ave.	Vermont Cycle Residence and Vandy's Steak House
1976	Same except 93 Woodstock Ave.	Tony's Texaco
1973-1974	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Same Automatic Dry Cleaning Center Smiley's Steak House Tony's Texaco
1972	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Vacant Same Residence and Vacant Same

1991 JOHNSON CITY DIRECTORY
US WEST MARKETING RESOURCES
JOHNSON DIRECTORY DIVISION

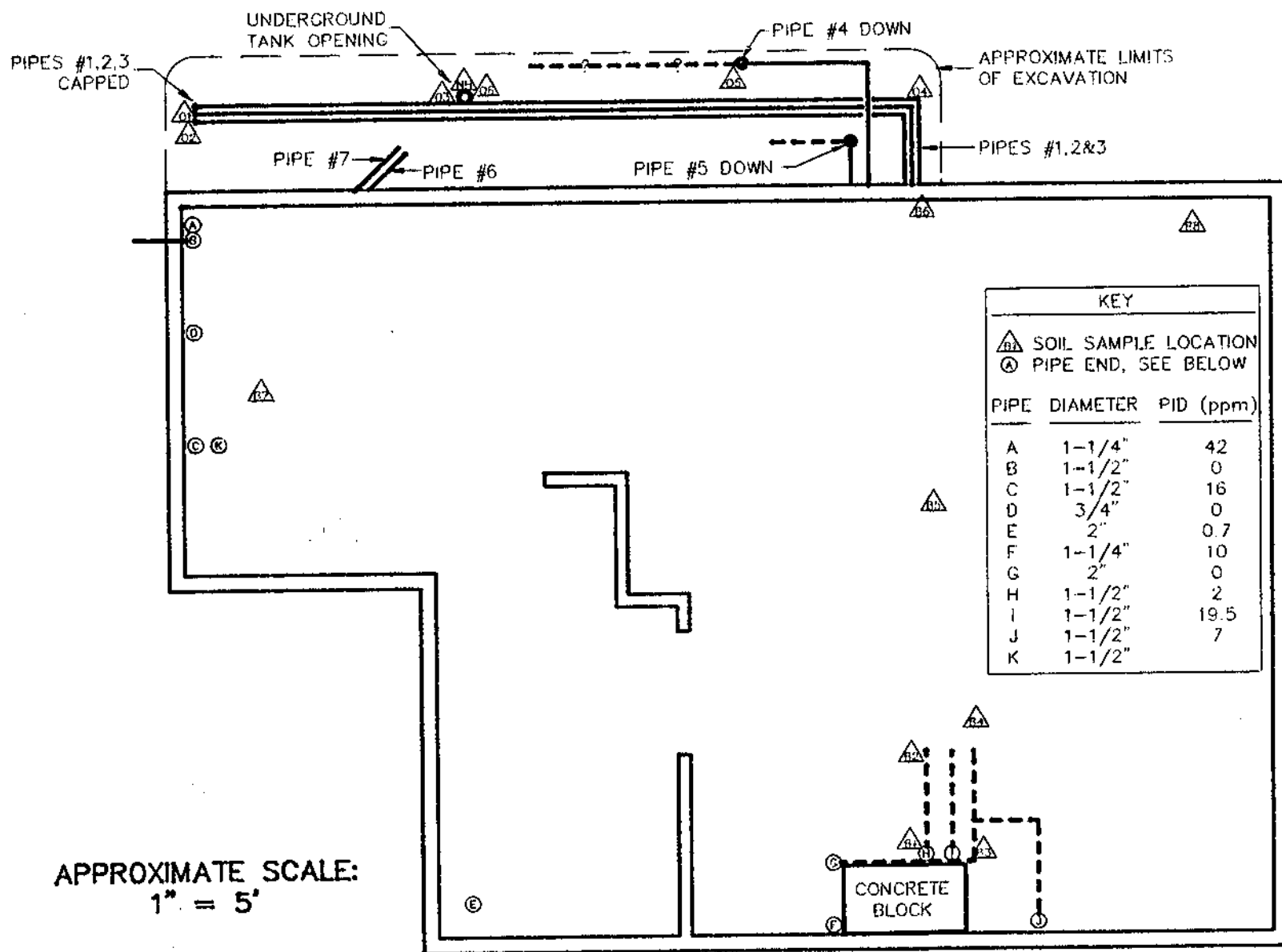
DATE	ADDRESS	OCCUPANT
1971	75 Woodstock Ave. 77 Woodstock Ave. 82 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Not Listed Automatic Laundry & Dry Cleaners Automatic Laundry Vincent's Restaurant Same
1970	75 Woodstock Ave. 77 Woodstock Ave. 82 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Rutland Cleaners & Dyers Dry Cleaning Center Three-D Chemical Co. Automatic Laundry Restaurant Ben's Texaco
1968	75 Woodstock Ave. 77 Woodstock Ave. 82 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Same Same United Chemical Co. Automatic Laundry Same Same
1966	Same except 86 Woodstock Ave.	No restaurant
1964	Same	
1961	Same except 77 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Rutland Cleaners & Dyers Plant Restaurant Johnson's Texaco
1960 & 1958	75 Woodstock Ave. 77 Woodstock Ave. 82 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Briggs Autobody Rutland Cleaners & Dyers Plant Rutland Upholsteries United Chemical Automatic Laundry Restaurant Fletcher's Texaco
1955	75 Woodstock Ave. 77 Woodstock Ave. 82 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Same Non Hazardous Same Restaurant Same
1951	Same except 86 Woodstock Ave.	No restaurant

1991 JOHNSON CITY DIRECTORY
US WEST MARKETING RESOURCES
JOHNSON DIRECTORY DIVISION

DATE	ADDRESS	OCCUPANT
1947	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Same Vacant & Frederick Hudson, Auto Electrician Residence Same
1944	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Same Vacant gas station Residence Dept. of Justice Immigration, Naturalization
1942	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Same Same Same Same Texaco Service Station
1940	75 Woodstock Ave. 77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 93 Woodstock Ave.	Not Listed Same Sinclair Service Station Same Texaco Station
1937	77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Same Sinclair Service Station Residence Rutland Cleaners & Dyers Not listed
1936	77 Woodstock Ave. 87 Woodstock Ave.	Rutland Cleaners & Dyers Plant Rutland Cleaners & Dyers
1935	77 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Same Residence Woodstock Ave. Filling Station Not Listed
1933	77 Woodstock Ave. 86 Woodstock Ave. No listing for 84, 87 or 93 Woodstock Ave.	Same Same
1936	84 Woodstock Ave.	Sinclair Service Station

1991 JOHNSON CITY DIRECTORY
US WEST MARKETING RESOURCES
JOHNSON DIRECTORY DIVISION

DATE	ADDRESS	OCCUPANT
1934	77 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Same No Listing Same Vacant No Listing
1930	77 Woodstock Ave. 82 Woodstock Ave. 84 Woodstock Ave. 86 Woodstock Ave. 87 Woodstock Ave. 93 Woodstock Ave.	Rutland Cleaners No Listing No Listing Same No Listing Residence
1928	All same, 93 now 97 Woodstock Ave.	
1927	No 77, 82, 84 87 Woodstock Ave. 86 - same	
1924	Same	
1919	Same	



APPROXIMATE SCALE:
 1" = 5'



APPENDIX B

Well Logs

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG WELL # PZ-1

Project: Patchet Property
Location: Rutland, Vermont
Job # 1-0342-2
Logged By: DMH/LRH
Date Drilled: 11/05/93
Driller: The Johnson Company
Drill Method: 4" Solid Stem Auger

Casing Type: PVC
Casing Diameter: 1.5 in.
Casing Length: 4.9 ft.
Screen Type: Factory slotted
Screen Diameter: 1.5 in.
Screen Length: 0.9 ft.
Slot Size: .010

Total Pipe: 5.9 ft.
Stick Up: 0.0 ft.
Total Hole Depth: 5.9 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: None
Surface Elevation: -
T.O.C. Elevation: -

■ = Sampled interval

Sheet 1 of 0

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4.5					
4					
3.5					
3					
2.5					
2					
1.5					
1					
0.5					
0		Well cap (locked)			
-0.5		Backfill			0-1': loam
-1					
-1.5					
-2					
-2.5		Hydrated Bentonite		4.5 ppm	1'-5': dark brown silty sand with some pebbles.
-3					
-3.5					
-4					
-4.5					
-5		Sand Pack		2.5 avg.	At 5': light brown sand and silt, damp.
-5.5		Screen			5.5'-6': mottles. PID readings: At 5.0'=2.0 ppm, At 5.2'=3.2 ppm.
-6					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG
WELL # OB-1

Project: Chittenden Bank-Fotohut
Location: 77A Woodstock, Rutland Vt
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 3/12/92
Driller: N/A
Drill Method: Excavator

Casing Type: PVC
Casing Diameter: 2.0 in.
Casing Length: 8.0 ft.
Screen Type: Factory slotted
Screen Diameter: 2.0 in.
Screen Length: 5.0 ft.
Slot Size: 0.010

Total Pipe: 13.0 ft.
Stick Up: 2.0 ft.
Total Hole Depth: 11.0 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 4.0 ft.
Surface Elevation: 690.25
T.O.C. Elevation: 692.25

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1					Grey fine sand some silt, cobbles, bricks, pebbles. Fill
2					
3		Backfill			
4					
5					
6					
7					
8					
9		Screen			Light grey saturated medium and fine sand, little silt, few subangular pebbles.
10					
11					
12					
13					
14					
15					
16					
17					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG
WELL # MW-1

Project: Fatohut
Location: 77A Woodstock, Rutland
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 9/30/93
Driller: Tristate
Drill Method: Hollow Stem

Casing Type: PVC
Casing Diameter: 2.0 in.
Casing Length: 10.8 ft.
Screen Type: Factory slotted
Screen Diameter: 2.0 in.
Screen Length: 4.8 ft.
Slot Size: .010"

Total Pipe: 15.8 ft.
Stick Up: -0.2 ft.
Total Hole Depth: 16.0 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 5.7 ft.
Surface Elevation: 689.90
T.O.C. Elevation: 689.70

■ = Sampled Interval

Sheet 1 of 1

Depth Feet	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1				0.4	0-3' off auger blades. Grey humid fine sand, some silt, little subangular pebbles.
2		Cement			
3				0.6	3-4' 4,15, refusal. 12" recovery. Light brown humid fine sand, some silt, trace subangular gravel, organics. Concrete in tip.
4					
5					
6					
7		Bentonite		1.0	6.7-8.7' 5,6,9,8 9" recovery. Light brown humid silt and fine sand, little angular pebbles. Many medium prominent orange/grey mottles
8					
9					
10				1.7	9-11' 5,6,9,11 17" recovery. Light brown damp fine sand, some silt, angular gravel. Common medium distinct orange/grey mottles Hard drilling, 11-11.5'
11					
12				20	11.5-13.5' 9,19,19,34 18" recovery Light brown moist fine sand, some silt, little angular gravel. Few medium distinct orange mottles.
13		Sand Pack			
14		Screen		11.5	13.5-15.5' 17,33,32,35 19" recovery Light brown wet fine sand, some silt, little angular gravel. No preferential orientation.
15					
16					
17					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05502

DRILLING LOG
WELL # MW-2

Project: Fatohut
Location: 77A Woodstock, Rutland
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 9/30/93
Driller: Tristate
Drill Method: Hollow Stem

Casing Type: PVC
Casing Diameter: 2.0 in.
Casing Length: 4.6 ft.
Screen Type: Factory slotted
Screen Diameter: 2.0 in.
Screen Length: 4.6 ft.
Slot Size: .010"

Total Pipe: 9.3 ft.
Stick Up: -0.5 ft.
Total Hole Depth: 10.0 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 4.0 ft.
Surface Elevation: 689.76
T.O.C. Elevation: 689.26

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1	Cement			1.8	0-3' off auger flights. Dark brown humid fine sand, some silt, organics. Hard drilling 2-3'.
2	Bentonite				
3				1.8	3-5' 3,1,1,5 22" recovery. 0-6" Light brown damp coarse and medium sand grading down to fine and medium sand. Sharp horizontal contacts and many distinct fine orange mottles.
4					
5				2.2	6-18" Black damp silt, little fine sand. many prominent fine orange mottles. Sharp steeply dipping contact.
6					
7	Sand Pack			26	18-22" Light brown moist fine sand, some silt. Many fine distinct orange mottles.
8	Screen				
9					
10					
11					5-7' 5,11,18,30 12" recovery. Light brown fine sand, some silt, angular pebbles. Moist at top and humid at base. Few faint fine orange/olive mottles. Rocky drilling 6-7'
12					
13					
14					
15					7-9' 9,8,10,5 14" recovery. Light grey saturated fine sand, little silt, angular gravel. Black stains in upper 6". PID 90ppm in hole. Auger tip at 9.75' same as above.
16					
17					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG WELL # MW-3

Project: Fatchut
Location: 77A Woodstock, Rutland
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 9/30/93
Driller: Tristate
Drill Method: Hollow Stem

Casing Type: PVC
Casing Diameter: 2.0 in.
Casing Length: 4.7 ft.
Screen Type: Factory slotted
Screen Diameter: 2.0 in.
Screen Length: 4.8 ft.
Slot Size: .010"

Total Pipe: 9.7 ft.
Stick Up: -0.2 ft.
Total Hole Depth: 9.8 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 5.6 ft.
Surface Elevation: 689.59
T.O.C. Elevation: 689.44

■ = Sample Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1	Cement			2.0	0-3' off auger flights. Black humid fine sand, some silt, organics, little angular gravel. Hard drilling 3-3.5'.
2	Bentonite				
3					
4				70	3.5-5.5' 1,4,6,13 20" recovery. 0-6" Black humid fine sand some silt, organics. Sharp horz. contact
5					6-20" Light brown humid silt and fine sand. Worm burrows. Many large distinct grey mottles. Gravel in tip.
6					
7	Sand Pack			115	
8	Screen				
9				25	6-8' 7,7,11,5 14" recovery. Light grey wet fine sand, some silt, angular gravel. Many large prominent brown/grey mottles. Slight Perc. odor. Rocky drilling 7-7.5'.
10					
11					
12					8-10' 3,4,5,7 16" recovery. Light grey saturated fines sand, some silt, angular gravel.
13					
14					
15					
16					
17					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG
WELL # MW-4

Project: Fatchut
Location: 77A Woodstock, Rutland
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 10/01/93
Driller: Tristate
Drill Method: Hollow stem

Casing Type: PVC
Casing Diameter: 2.0 in.
Casing Length: 4.3 ft.
Screen Type: Factory slotted
Screen Diameter: 2.0 in.
Screen Length: 9.7 ft.
Slot Size: .010"

Total Pipe: 14.1 ft.
Stick Up: -0.5 ft.
Total Hole Depth: 14.6 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 5.0 ft.
Surface Elevation: 689.87
T.O.C. Elevation: 689.37

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					0-3' off auger flights. 0-2' Black damp fine sand and silt. 2-3' Light brown damp fine sand and silt.
1	Cement			2.2	3-5' 5,5,6,5 16" recovery. Light brown wet fine sand and silt. Faint horizontal 0.25" bands. Common fine prominent black mottles.
2	Bentonite			1.2	5-7' 3,3,2,5 24" recovery. Light brown saturated fine sand and silt, some angular gravel. No preferential orientation.
3				1.8	7-9' 6,9,11,11 18" recovery. Light brown humid fine sand and silt, some angular gravel. Rocky drilling 7-12'.
4				1.6	12-14' 9,11,12,15 5" recovery, sample appears to have slipped out. Light brown saturated fine sand, little silt, subangular gravel. No preferential orientation.
5				7.7	14.5-16.5' 9,12,15,26 16" recovery 0-2" Light brown sat. subangular gravel. Gradational contact. 2-4" Light brown sat. coarse sand and gravel. Sharp horz. contact. 4-16" Light brown sat. fine sand, little gravel, fining downwards.
6				6.8	
7					
8					
9	Sand Pack				
10	Screen				
11					
12					
13					
14					
15					
16					
17					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG
WELL # MW-5

Project: Fatohut
Location: 77A Woodstock, Rutland
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 10/01/93
Driller: Tristate
Drill Method: Hollow stem

Casing Type: PVC
Casing Diameter: 2.0 in.
Casing Length: 3.8 ft.
Screen Type: Factory slotted
Screen Diameter: 2.0 in.
Screen Length: 4.6 ft.
Slot Size: .010"

Total Pipe: 8.5 ft.
Stick Up: -0.5 ft.
Total Hole Depth: 9.0 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 7.4 ft.
Surface Elevation: 688.55
T.O.C. Elevation: 688.05

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1		Cement		2.2	0-3' off auger flights 0-0.4' asphalt 0.4-3' Brown dry medium and coarse sand and gravel, little silt.
2		Bentonite			
3					
4				130	3-5' 1,2,2,5 19" recovery. Black shiny damp silt and fine sand, trace subangular gravel. Slight perc. odor.
5		Sand Pack			
6		Screen		150	5-7' 1,4,7,6 18" recovery. 0-8" Black humid. 8-10" Light grey humid. 10-18" Light brown humid fine sand and silt, trace angular gravel. Lowest 0.25' is wet.
7				155	7-9' 3,2,5,4 4" recovery. Light brown fine sand and silt, trace gravel. Strong perc. odor. PID of 190 ppm from auger tip at 9'.
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG
WELL # MW-6

Project: Fotehut
Location: 77A Woodstock, Rutland
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 10/01/93
Driller: Tristate
Drill Method: Hollow stem

Casing Type:
Casing Diameter:
Casing Length:
Screen Type:
Screen Diameter:
Screen Length:
Slot Size:

Total Pipe: 0.0 ft.
Stick Up: 0.0 ft.
Total Hole Depth: 4.5 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 4.7 ft.
Surface Elevation: 688.48
T.O.C. Elevation: N/A

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4.5					
4					
3.5					
3					
2.5					
2					
1.5					
1					
0.5					
0					
0.5	Cement				0-3' from auger flights.
1					0-0.4' asphalt.
1.5					0.4-1.5' Brown humid fine sand and gravel.
2				4.0	1.5-3' Black shiny humid fine sand and subangular gravel.
2.5	Bentonite				
3					
3.5					3-5' 2,2,6,26 14" recovery.
4				250	0.2' Brown dry coarse sand (spoil).
4.5					0.2-14" Black humid fine sand, some silt. Wet in lower 0.3'. Strong perc. odor. Refusal on hollow metallic object at 4.5'.
5					
5.5					
6					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG
WELL # MW-7

Project: Fotechut
Location: 77A Woodstock, Rutland
Job # 1-0342-2
Logged By: D. Maynard
Date Drilled: 10/01/93
Driller: Tristate
Drill Method: Hollow stem

Casing Type: PVC
Casing Diameter: 2.0 in.
Casing Length: 3.6 ft.
Screen Type: Factory slotted
Screen Diameter: 2.0 in.
Screen Length: 4.6 ft.
Slot Size: .010"

Total Pipe: 8.4 ft.
Stick Up: -0.6 ft.
Total Hole Depth: 9.0 ft.
Well Guard Length: 0.1 ft.
Initial Water Level: 6.5 ft.
Surface Elevation: 688.51
T.O.C. Elevation: 687.65

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1		Cement		0.8	0-3' from auger flights. 0-0.4' asphalt.
2		Bentonite			0.4-3' Brown humid fine sand and gravel, little silt.
3					
4				0.6	3-5' 2,1,3,5 18" recovery. 0-6" Dark brown damp fine sand and silt.
5		Sand Pack			6-18" Light brown wet fine sand and silt. Many fine distinct orange mottles.
6		Screen		0.4	
7					5-7' 3,5,7,21 18" recovery. Light brown moist fine sand and silt, little subangular gravel, pebbles. Common faint large grey mottles.
8				0.4	
9					
10					7-9' 9,12,16,12 16" recovery. Light brown moist to wet fine sand and silt, little subangular gravel. No preferential orientation. Common distinct large grey mottles.
11					
12					
13					
14					
15					
16					
17					

The Johnson Company, Inc.
Environmental Sciences and Engineering
5 State Street
Montpelier, Vermont 05602

DRILLING LOG
WELL # MW-8

Project: Chittenden Bank-Fotohut
Location: 77A Woodstock, Rutland Vt
Job # 1-0342-2
Logged By: E. Hanson
Date Drilled: 10/11/93
Driller: JCO
Drill Method: Solid Stem Auger

Casing Type: PVC
Casing Diameter: 1.5 in.
Casing Length: 4.9 ft.
Screen Type: Factory slotted
Screen Diameter: 1.5 in.
Screen Length: 4.6 ft.
Slot Size: 0.010

Total Pipe: 9.7 ft.
Stick Up: 1.9 ft.
Total Hole Depth: 8.0 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: 5.5 ft.
Surface Elevation: 688.43
T.O.C. Elevation: 690.31

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1	Bentonite			250	Dark grey damp silt and sand, little gravel, pebbles.
2					
3	Sand Pack			250	Grey, damp to wet, fine sand some silt, little gravel, pebbles.
4	Screen			250	
5					
6				250	Olive grey, wet to saturated silt and fine sand, little gravel, pebbles. Large stone at 8'.
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

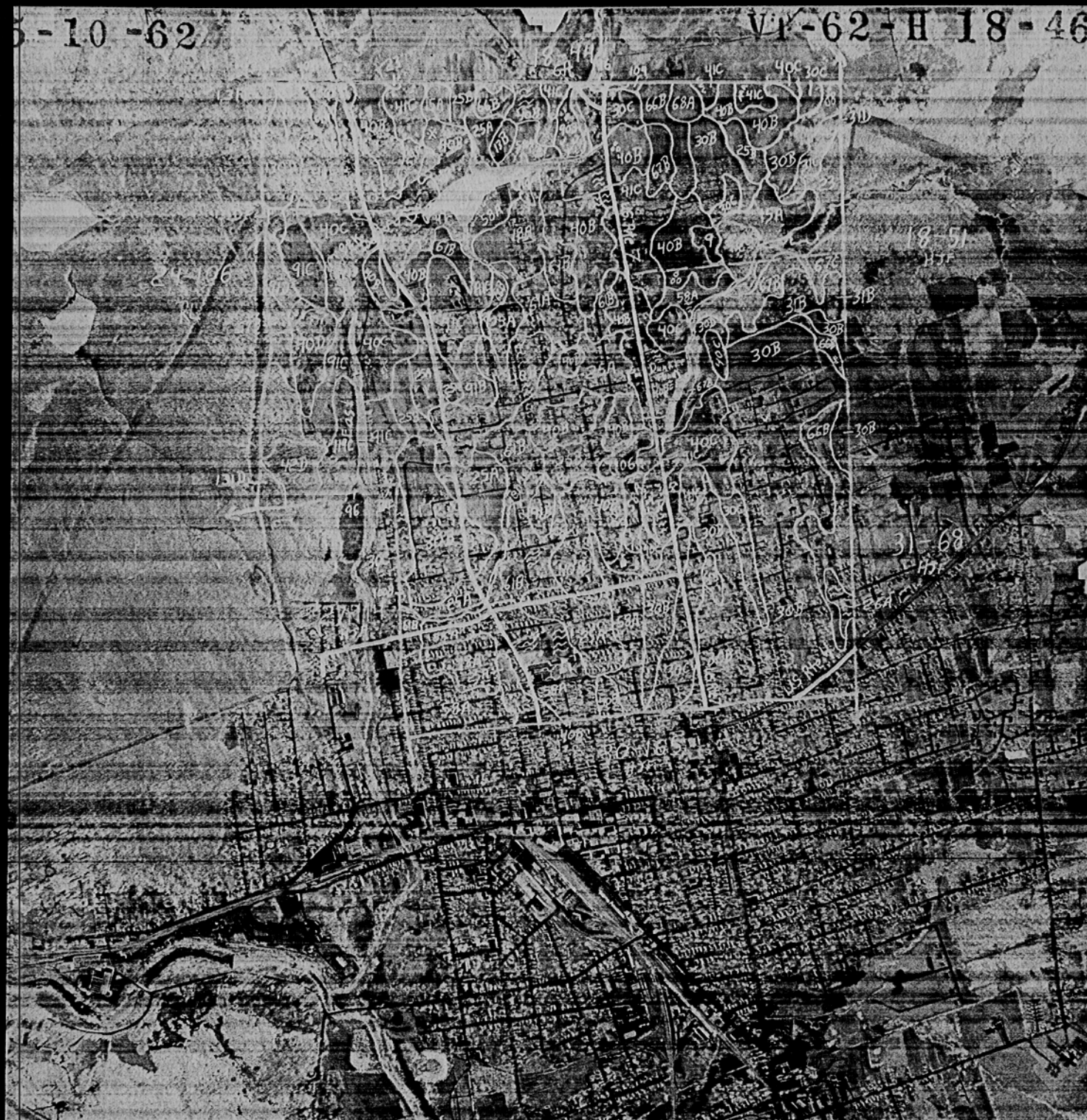
APPENDIX C
SCS Soil Maps

USDA-SCS-FORT WORTH, TEXAS

SURVEY HAS NOT BEEN COMPILED NOR CORRELATED. NAMES
MAY BE CHANGED AND AREAS MAY BE COMBINED.

5-10-62

VT-62-H 18-46



U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATION

APPROX. SCALE 1" = 1500'



USDA SCS FORT WORTH, TEXAS

SOIL SURVEY FIELD SHEET
RUTLAND COUNTY, VERMONT
ADVANCE COPY - SUBJECT TO CHANGE
SURVEY HAS NOT BEEN COMPILED NOR CORRELATED. NAMES
MAY BE CHANGED AND AREAS MAY BE COMBINED

5-10-62

VT-62-H 18-51



U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATION

APPROX. SCALE 1" = 1500'

USDA SCS FORT WORTH, TEXAS



SOIL SURVEY FIELD SHEET
RUTLAND COUNTY, VERMONT
ADVANCE COPY - SUBJECT TO CHANGE
SHEET HAS NOT BEEN COMPILED NOR CORRELATED. NAMES
MAY BE CHANGED AND AREAS MAY BE COMBINED.

SOIL SURVEY IDENTIFICATION LEGEND
RUTLAND COUNTY, VERMONT
NOVEMBER 1984

Mapping Symbol	Field Mapping Unit Name
1B	Marlow fine sandy loam, 3 to 8 percent slopes
1C	Marlow fine sandy loam, 8 to 15 percent slopes
1D	Marlow fine sandy loam, 15 to 25 percent slopes
1E	Combined with 1D
2B	Combined with 4B
2C	Marlow fine sandy loam, 8 to 15 percent slopes, very stony
2D	Marlow fine sandy loam, 15 to 35 percent slopes, very stony
2E	Marlow fine sandy loam, 35 to 60 percent slopes, very stony
3A	Combined with 3B
3B	Peru gravelly fine sandy loam, 3 to 8 percent slopes
3C	Peru gravelly fine sandy loam, 8 to 15 percent slopes
4A	Combined with 4B
4B	Peru gravelly fine sandy loam, 3 to 8 percent slopes, very stony
4C	Peru gravelly fine sandy loam, 8 to 15 percent slopes, very stony
4D	Peru gravelly fine sandy loam, 15 to 25 percent slopes, very stony
5A	Combined with 6A
5B	Combined with 6A
6A	Cabot gravelly fine sandy loam, 0 to 8 percent slopes, very stony
6B	Combined with 6A
6C	Brayton loam, 8 to 15 percent slopes, very stony
7A	Combined with 152 or 150A
8A	Combined with 152 or 150A
9	Pitts-Dunps Complex
10C	Combined with 131D

Mapping Symbol	Field Mapping Unit Name
10D	Combined with 131D
10E	Combined with 131E
11	Combined with 11C or 11E
11C	Taconic-Hubbardton complex, 8 to 25 percent slopes, very rocky -
11D	Combined with 11C
11E	Taconic-Hubbardton-Macomber complex, 25 to 80 percent slopes, very rocky
12D	Combined with 130D
12E	Combined with 130E
13A	Combined with 13B
13B	Hinckley gravelly loamy fine sand, 0 to 8 percent slopes
13C	Hinckley gravelly loamy fine sand, 8 to 15 percent slopes
13D	Hinckley gravelly loamy fine sand, 15 to 25 percent slopes
13E	Hinckley gravelly loamy fine sand, 25 to 40 percent slopes
14A	Sudbury fine sandy loam, 0 to 3 percent slopes
14B	Sudbury fine sandy loam, 3 to 8 percent slopes
15A	Walpole fine sandy loam, 0 to 5 percent slopes
16B	Combined with 130B
16C	Combined with 130C
16D	Combined with 130D
16E	Combined with 130E
17A	Combined with 18B
17B	Combined with 18B
17C	Combined with 18C
18A	Combined with 18B
18B	Windsor loamy sand, 3 to 8 percent slopes
18C	Windsor loamy sand, 8 to 15 percent slopes

Mapping
Symbol

Field Mapping Unit Name

400	Galway-Hellis-Farmington silt loams, 15 to 25 percent slopes, rocky
41B	Combined with 41C
41C	Farmington-Galway-Galoo silt loams, 5 to 25 percent slopes, very rocky
41D	Combined with 41C
41E	Farmington-Galway-Galoo silt loams, 25 to 50 percent slopes, very rocky
42B	Macomber-Dutchess complex, 3 to 8 percent slopes
42C	Macomber-Taconic complex, 8 to 15 percent slopes, rocky
42D	Macomber-Taconic complex, 15 to 25 percent slopes, rocky
42E	Macomber-Taconic complex, 25 to 80 percent slopes, rocky
43B	Combined with 43C
43C	Taconic-Macomber complex, 8 to 25 percent slopes, very rocky
43D	Combined with 43C
43E	Combined with 11E
44B	Dutchess silt loam, 3 to 8 percent slopes
44C	Dutchess silt loam, 8 to 15 percent slopes
44D	Dutchess silt loam, 15 to 25 percent slopes
45B	Combined with 148B
45C	Combined with 148C
45D	Combined with 148D
46B	Combined with 149B
46C	Combined with 149C
46D	Combined with 149D
46E	Combined with 149E
47B	Dutchess silt loam, 3 to 8 percent slopes, very stony
47C	Dutchess silt loam, 8 to 15 percent slopes, very stony
47D	Dutchess silt loam, 15 to 25 percent slopes, very stony

Mapping
Symbol

Field Mapping Unit Name

47E	Dutchess silt loam, 25 to 60 percent slopes, very stony
48A	Combined with 148B
48B	Combined with 148B
48C	Combined with 148C
48D	Combined with 148D
49B	Combined with 149B
49C	Combined with 149C
49D	Combined with 149D
49E	Combined with 149E
50A	Massena silt loam, 0 to 8 percent slopes
50B	Combined with 50A
51A	Combined with 50A
51B	Combined with 50A
52	Combined with 152
52A	Combined with 152
53	Elvers silt loam
54A	Ninigret fine sandy loam, 0 to 4 percent slopes
55A	Combined with 6A
55B	Combined with 6A
56B	Colton-Duxbury complex, 2 to 8 percent slopes, very stony
56C	Colton-Duxbury complex, 8 to 15 percent slopes, very stony
56D	Colton-Duxbury complex, 15 to 25 percent slopes, very stony
56E	Colton-Duxbury complex, 25 to 50 percent slopes, very stony
57B	Duxbury-Colton complex, 2 to 8 percent slopes
57C	Colton-Duxbury complex, 8 to 15 percent slopes
57D	Colton-Duxbury complex, 15 to 25 percent slopes

Mapping
Symbol

Field Mapping Unit Name

78A	Combined with 110
79	Combined with 110
79A	Combined with 110
80A	Kingsbury silty clay loam, 0 to 3 percent slopes
80B	Kingsbury silty clay loam, 3 to 8 percent slopes
81	Livingston silty clay loam
81A	Combined with 81
82A	Combined with 80A
82B	Vergennes clay, 3 to 8 percent slopes
82C	Vergennes clay, 8 to 15 percent slopes
82D	Vergennes clay, 15 to 25 percent slopes
82E	Vergennes clay, 25 to 50 percent slopes
83A	Combined with 61A
83B	Combined with 61B
83C	Combined with 61B
83D	Combined with 61B
84A	Combined with 161A
84B	Combined with 161B
84C	Combined with 161B
85A	Combined with 62
86	Linwood muck
86A	Combined with 86
87	Combined with 24
87A	Combined with 24
88	Birdsall muck
88A	Combined with 88

Mapping
Symbol

Field Mapping Unit Name

90B	Hartland silt loam, 3 to 8 percent slopes
90C	Hartland silt loam, 8 to 15 percent slopes
90D	Hartland silt loam, 15 to 25 percent slopes
90E	Combined with 90D
91B	Combined with 30B
91C	Combined with 30C
91D	Combined with 30D
92B	Combined with 31B
92C	Combined with 31C
92D	Combined with 31D
92E	Combined with 31E
94B	Combined with 148B
94C	Combined with 148C
95	Udorthents, loamy
96	Udipsamments, nearly level
97A	Warwick-Quonset complex, 0 to 3 percent slopes
97B	Warwick-Quonset complex, 3 to 8 percent slopes
97C	Warwick-Quonset complex, 8 to 15 percent slopes
97D	Warwick-Quonset complex, 15 to 25 percent slopes
97E	Quonset-Warwick complex, 25 to 45 percent slopes
98C	Combined with 148C
98D	Combined with 148D
99B	Copake gravelly fine sandy loam, 2 to 8 percent slopes
99C	Combined with 13C
99D	Combined with 13D
100A	Combined with 18B

<u>Mapping Symbol</u>	<u>Field Mapping Unit Name</u>
135D	Mundal loam, 15 to 35 percent slopes, very stony
135E	Mundal loam, 35 to 60 percent slopes, very stony
138B	Combined with 1B
138C	Berkshire gravelly fine sandy loam, 8 to 15 percent slopes
139B	Sunapee gravelly fine sandy loam, 3 to 8 percent slopes
139C	Sunapee gravelly fine sandy loam, 8 to 15 percent slopes
140C	Benson very channery loam, 3 to 15 percent slopes
140D	Benson very channery loam, 15 to 25 percent slopes
140E	Benson very channery loam, 25 to 50 percent slopes
141C	Combined with 41C
141E	Combined with 41E
142B	Combined with 42B
142C	Combined with 42C
142D	Combined with 42D
142E	Combined with 42E
148B	Bomoseen and Pittstown soils, 2 to 8 percent slopes
148C	Bomoseen and Pittstown soils, 8 to 15 percent slopes
148D	Bomoseen and Pittstown soils, 15 to 25 percent slopes
149B	Bomoseen and Pittstown soils, 3 to 8 percent slopes, very stony
149C	Bomoseen and Pittstown soils, 8 to 15 percent slopes, very stony
149D	Bomoseen and Pittstown soils, 15 to 25 percent slopes, very stony
149E	Bomoseen and Pittstown soils, 25 to 40 percent slopes, very stony
150A	Peacham muck, 0 to 8 percent slopes
152	Lyons silt loam
158A	Combined with 58A
161A	Elmridge sandy loam, 0 to 3 percent slopes

<u>Mapping Symbol</u>	<u>Field Mapping Unit Name</u>
161B	Elmridge sandy loam, 3 to 8 percent slopes
162A	Combined with 62
163	Canandaigua silt loam
175	Wappinger silt loam
177	Pawling silt loam
179	Combined with 110
180B	Combined with 148B
180C	Combined with 148C
180D	Combined with 148D
182B	Combined with 148B
182C	Combined with 148C
182D	Combined with 148D
183B	Combined with 149B
183C	Combined with 149C
183D	Combined with 149D
183E	Combined with 149E
224B	Combined with 121B
224C	Combined with 123C
224D	Combined with 124D
224E	Combined with 124E

APPENDIX D
Analytical Results



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602

(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-10
Project:	1-0342-2(044), 77A Woodstock	Sample:	OB1
Report Date:	10/28/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/26/93	Dilution	
By:	GMT	Factor:	5

Priority Purgable Halocarbons

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-10
Project: 1-0342-2(044), 77A Woodstock Sample: OB1

Priority Purgable Aromatics

Number	Compound	PQL (ug/L)	Result (ug/L)
30	Benzene	1	BQL
31	Ethylbenzene	1	60
32	Toluene	1	8

Other TCL Compounds *

33	Xylenes	1	560
34	Methyl-t-butylether	1	BQL
35	cis-1,2-Dichloroethene	1	61

Surrogate Standard Recovery:

1,4-Dichlorobutane	106 %
1,4-Difluorobenzene	95 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

* EPA Methods 601/602 do not specify other TCL compounds. Method analysis and QC for these parameters are laboratory derived.

Quantitation limit elevated due to sample dilution prior to analysis.

Sample diluted due to high concentration of target compounds present.

FORM 601/2cis Rev. 041493



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 1 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2(044), 77A Woodstock
Report Date: 10/28/93
Collected: 10/12/93
Received: 10/14/93
Analyzed: 10/26/93
By: GMT

IEA ID: J104-031-02
Sample: MW 1
Type: Water
Container: VOA

Dilution
Factor: 1

Priority Purgable Halocarbons

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-02
Project: 1-0342-2(044), 77A Woodstock Sample: MW 1

Priority Purgable Aromatics

Number	Compound	PQL (ug/L)	Result (ug/L)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL

Other TCL Compounds *

33	Xylenes	1	BQL
34	Methyl-t-butylether	1	BQL
35	cis-1,2-Dichloroethene	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	97 %
1,4-Difluorobenzene	98 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

* EPA Methods 601/602 do not specify other TCL compounds. Method analysis and QC for these parameters are laboratory derived.



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 1 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2(044), 77A Woodstock
Report Date: 10/28/93
Collected: 10/12/93
Received: 10/14/93
Analyzed: 10/26/93
By: GMT

IEA ID: J104-031-03
Sample: MW 2
Type: Water
Container: VOA

Dilution
Factor: 1

Priority Purgable Halocarbons

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-03
Project: 1-0342-2(044), 77A Woodstock Sample: MW 2

Priority Purgable Aromatics

Number	Compound	PQL (ug/L)	Result (ug/L)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL

Other TCL Compounds *

33	Xylenes	1	BQL
34	Methyl-t-butylether	1	BQL
35	cis-1,2-Dichloroethene	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	100 %
1,4-Difluorobenzene	97 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

* EPA Methods 601/602 do not specify other TCL compounds. Method analysis and QC for these parameters are laboratory derived.



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-04
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW 3
Report Date:	10/28/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/26/93	Dilution	
By:	GMT	Factor:	1

Priority Purgable Halocarbons

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-04
Project: 1-0342-2(044), 77A Woodstock Sample: MW 3

Priority Purgable Aromatics

Number	Compound	PQL (ug/L)	Result (ug/L)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL

Other TCL Compounds *

33	Xylenes	1	BQL
34	Methyl-t-butylether	1	BQL
35	cis-1,2-Dichloroethene	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	101 %
1,4-Difluorobenzene	100 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the
PQL by the dilution factor.

* EPA Methods 601/602 do not specify other TCL compounds. Method analysis
and QC for these parameters are laboratory derived.



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-09
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW3 DUP
Report Date:	10/28/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/26/93	Dilution	
By:	GMT	Factor:	1

Priority Purgable Halocarbons

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-09
Project: 1-0342-2(044), 77A Woodstock Sample: MW3 DUP

Priority Purgable Aromatics

Number	Compound	PQL (ug/L)	Result (ug/L)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL

Other TCL Compounds *

33	Xylenes	1	BQL
34	Methyl-t-butylether	1	BQL
35	cis-1,2-Dichloroethene	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	103 %
1,4-Difluorobenzene	103 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

* EPA Methods 601/602 do not specify other TCL compounds. Method analysis and QC for these parameters are laboratory derived.



IEA

An Aquarion Company

Analysis Report: EPA Method 8240
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-05
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW 4
Report Date:	10/26/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/25/93	Dilution	
By:	JAG	Factor:	1

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (Total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	5
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl chloride	10	BQL



IEA

An Aquarion Company

Analysis Report: EPA Method 8240
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-05
Project: 1-0342-2(044), 77A Woodstock Sample: MW 4

Number	Compound	PQL (ug/L)	Result (ug/L)
Other TCL Compounds:			
32	Acetone	100	BQL
33	2-Butanone	100	BQL
34	Carbon disulfide	5	BQL
35	1,2-Dibromoethane	5	BQL
36	2-Hexanone	50	BQL
37	Methyl-t-butylether	5	BQL
38	4-Methyl-2-pentanone	50	BQL
39	Styrene	5	BQL
40	Vinyl Acetate	50	BQL
41	Xylenes (Total)	5	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	110 %
Toluene-d8	102 %
Bromofluorobenzene	107 %

Comments:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.
Quantitation limits for this sample are obtained by multiplying the
PQL by the dilution factor.



IEA

An Aquarion Company

Analysis Report: EPA Method 8240
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-06
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW 5
Report Date:	10/26/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/19/93	Dilution	
By:	JAG	Factor:	2

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (Total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl chloride	10	BQL



IEA

An Aquarion Company

Analysis Report: EPA Method 8240
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-06
Project: 1-0342-2(044), 77A Woodstock Sample: MW 5

Number	Compound	PQL (ug/L)	Result (ug/L)
Other TCL Compounds:			
32	Acetone	100	BQL
33	2-Butanone	100	BQL
34	Carbon disulfide	5	BQL
35	1,2-Dibromoethane	5	BQL
36	2-Hexanone	50	BQL
37	Methyl-t-butylether	5	BQL
38	4-Methyl-2-pentanone	50	BQL
39	Styrene	5	BQL
40	Vinyl Acetate	50	BQL
41	Xylenes (Total)	5	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	100 %
Toluene-d8	108 %
Bromofluorobenzene	110 %

Comments:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.
Quantitation limits for this sample are obtained by multiplying the
PQL by the dilution factor.
Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to the presence of non-target compounds.

**IEA**

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-07
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW 7
Report Date:	10/28/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/26/93	Dilution	
By:	GMT	Factor:	1

Priority Purgable Halocarbons

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-07
Project: 1-0342-2(044), 77A Woodstock Sample: MW 7

Priority Purgable Aromatics

Number	Compound	PQL (ug/L)	Result (ug/L)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL

Other TCL Compounds *

33	Xylenes	1	BQL
34	Methyl-t-butylether	1	BQL
35	cis-1,2-Dichloroethene	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	92 %
1,4-Difluorobenzene	93 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

* EPA Methods 601/602 do not specify other TCL compounds. Method analysis and QC for these parameters are laboratory derived.



IEA

An Aquarion Company

Analysis Report: EPA Method 8240
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-07
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW 7
Report Date:	10/26/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/19/93	Dilution	
By:	JAG	Factor:	1

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (Total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl chloride	10	BQL



Analysis Report: EPA Method 8240
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-07
Project: 1-0342-2(044), 77A Woodstock Sample: MW 7

Number	Compound	PQL (ug/L)	Result (ug/L)
Other TCL Compounds:			
32	Acetone	100	BQL
33	2-Butanone	100	BQL
34	Carbon disulfide	5	BQL
35	1,2-Dibromoethane	5	BQL
36	2-Hexanone	50	BQL
37	Methyl-t-butylether	5	BQL
38	4-Methyl-2-pentanone	50	BQL
39	Styrene	5	BQL
40	Vinyl Acetate	50	BQL
41	Xylenes (Total)	5	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	100 %
Toluene-d8	109 %
Bromofluorobenzene	106 %

Comments:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.
Quantitation limits for this sample are obtained by multiplying the
PQL by the dilution factor.



IEA

An Aquarion Company

Analysis Report: EPA Method 8240
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-08
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW 8
Report Date:	10/26/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/19/93	Dilution	
By:	JAG	Factor:	20

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (Total)	5	430
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl chloride	10	BQL



IEA

An Aquarion Company

Analysis Report: EPA Method 8240
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-08
Project: 1-0342-2(044), 77A Woodstock Sample: MW 8

Number	Compound	PQL (ug/L)	Result (ug/L)
Other TCL Compounds:			
32	Acetone	100	BQL
33	2-Butanone	100	BQL
34	Carbon disulfide	5	BQL
35	1,2-Dibromoethane	5	BQL
36	2-Hexanone	50	BQL
37	Methyl-t-butylether	5	BQL
38	4-Methyl-2-pentanone	50	BQL
39	Styrene	5	BQL
40	Vinyl Acetate	50	BQL
41	Xylenes (Total)	5	620

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	95 %
Toluene-d8	109 %
Bromofluorobenzene	111 %

Comments:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to the presence of non-target compounds.



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-11
Project:	1-0342-2(044), 77A Woodstock	Sample:	Field Blank
Report Date:	10/28/93	Type:	Water
Collected:	10/12/93	Container:	VOA
Received:	10/14/93		
Analyzed:	10/26/93	Dilution	
By:	GMT	Factor:	1

Priority Purgable Halocarbons

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 601/602
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-11
Project: 1-0342-2(044), 77A Woodstock Sample: Field Blank

Priority Purgable Aromatics

Number	Compound	PQL (ug/L)	Result (ug/L)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL

Other TCL Compounds *

33	Xylenes	1	BQL
34	Methyl-t-butylether	1	BQL
35	cis-1,2-Dichloroethene	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	87 %
1,4-Difluorobenzene	81 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

* EPA Methods 601/602 do not specify other TCL compounds. Method analysis and QC for these parameters are laboratory derived.

CHAIN OF CUSTODY RECORD

No 1006

Client/Project Name CHITTENDEN BANK - FORD HVT			Project Location 77A WOODSTOCK, RUTLAND, VT			ANALYSES			
Project No. 1-R342-2 (044)			Field Logbook No. OMMBA						
Sampler: (Signature) <i>[Signature]</i>			Chain of Custody Tape No. JCO-604						
Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample				REMARKS	
MW-5	10/11/93	10:00		SOIL - TWO GLASS	✓			PID 250 PPM	
MW1	10/12/93	2:05pm		WATER TWO 40ML		✓			
MW2	10/12/93	1:50pm				✓			
MW3	10/12/93	2:35pm				✓			
MW4	10/12/93	1:00pm				✓			
MW5	10/12/93	2:45pm				✓			
MW7	10/12/93	1:40pm			✓	✓			
MW8	10/12/93	2:55pm			✓	✓			
Relinquished by: (Signature) <i>[Signature]</i>				Date 10/11/93	Time	Received by: (Signature) <i>[Signature]</i>		Date 10-11-93	Time 1:00 pm
Relinquished by: (Signature) <i>[Signature]</i>				Date 10-13-93	Time 9:30am	Received by: (Signature)		Date	Time
Relinquished by: (Signature)				Date	Time	Received for Laboratory: (Signature) <i>[Signature]</i>		Date 10/14/93	Time 12:30
Sample Disposal Method:				Disposed of by: (Signature)				Date	Time
SAMPLE COLLECTOR 5 State Street Montpelier, VT 05602 (802) 229-4600 Fax: (802) 229-5876 THE JOHNSON COMPANY, INC. Environmental Sciences and Engineering				ANALYTICAL LABORATORY IEA RESULTS TO DON MAYNARD JOHNSON CO. INVOICE TO CHRIS BISHOP CHITTENDEN BANK 2 BURLINGTON SQUARE - PO BOX 820 BURLINGTON, VT 05402					

CHAIN OF CUSTODY RECORD

No 1007

Client/Project Name <i>CHITTENDEN BANK-FIELD</i>			Project Location <i>FJA WOODSTOCK, RUTHERFORD, VT</i>			ANALYSES					
Project No. <i>1-0342-2 (044)</i>			Field Logbook No. <i>TME-2</i>			601-602					
Sampler: (Signature) <i>Johnny Foster</i>			Chain of Custody Tape No. <i>JCO-604</i>								
Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample	REMARKS						
<i>MIN 3 DUP</i>	<i>10/12/93</i>	<i>2:35pm</i>									
<i>OBI</i>	<i>10/12/93</i>	<i>2:15pm</i>									
<i>FIELD BLANK</i>	<i>10/12/93</i>	<i>1:10pm</i>									
Relinquished by: (Signature) <i>Johnny Foster</i>				Date <i>10-13-93</i>	Time <i>9:30am</i>	Received by: (Signature)				Date	Time
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time
Relinquished by: (Signature)				Date	Time	Received for Laboratory: (Signature) <i>[Signature]</i>				Date <i>10/14/93</i>	Time <i>12:30</i>
Sample Disposal Method:				Disposed of by: (Signature)				Date	Time		
SAMPLE COLLECTOR 5 State Street Montpelier, VT 05602 (802) 229-4600 Fax: (802) 229-5876				ANALYTICAL LABORATORY <i>IEA</i>							

LABORATORY REPORT

CLIENT NAME: The Johnson Company
 SITE LOCATION: Fitchburg- Rutland, Vt.
 LABORATORY NO: 2-1638
 PROJECT NO: 78611
 ATTENTION: Don Maynard

DATE OF SAMPLE: 9/21/92
 DATE OF RECEIPT: 9/30/92
 DATE OF ANALYSIS: 10/2/92
 DATE OF REPORT: 10/22/92

PARAMETER

QB - 1

Chloromethane	< 50
Bromoform	< 50
Bromomethane	< 50
Dibromochloromethane	< 50
Vinyl Chloride	< 50
2-Chloroethylvinyl Ether	< 50
Chloroethane	< 50
Methylene Chloride	< 50
Trichloroethylene	< 50
Trichlorofluoromethane	< 50
1,1-Dichloroethene	< 50
1,1-Dichloroethane	< 50
cis-1,2-Dichloroethylene	268
Chloroform	< 50
1,2-Dichloroethane	< 50
1,1,1-Trichloroethane	< 50
Carbon Tetrachloride	< 50
Bromodichloromethane	< 50
1,2-Dichloropropane	< 50
trans-1,3-Dichloropropene	< 50
cis-1,3-Dichloropropene	< 50
1,1,2,2-Tetrachloroethane	< 50
1,1,2-Trichloroethane	< 50
Tetrachloroethylene	< 50
Benzene	< 50
Toluene	59
Ethylbenzene	144
Chlorobenzene	< 50
1,4-Dichlorobenzene	< 50
1,3-Dichlorobenzene	< 50
1,2-Dichlorobenzene	< 50
Xylenes Xylenes	1240
Surrogate % Recovery 601/602	102/112

EPA Method 601 & 602; All results reported as ug/l or ppb.

NOTE: Many late eluting aromatic hydrocarbons present.

RECEIVED

OCT 26 1992

THE JOHNSON CO., INC.
 MONTPELIER, VERMONT

Respectfully Submitted,
 SCITEST, INC.

Roderick J. Lamothe
 Roderick J. Lamothe
 Laboratory Director

WJL/rog



No 865

CHAIN OF CUSTODY RECORD

Client/Project Name Chittenden Bank - Foto Hut			Project Location Rutland, Vermont			ANALYSES					
Project No. 1-0342-1			Field Logbook No. TMJ-2								
Sampler: (Signature) Jammy Fortier			Chain of Custody Tape No. JCO 947								
Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample	REMARKS						
OB-1	9-21-92		2-1638	water	<div style="transform: rotate(-45deg); border: 1px solid black; padding: 5px; display: inline-block;"> RECEIVED VT DEPT. OF ENVIRONMENTAL RECORDS 1992 SEP 21 10:16 AM </div>						
Relinquished by: (Signature) Jammy Fortier				Date 9-30-92	Time 8:15am	Received by: (Signature)			Date	Time	
Relinquished by: (Signature)				Date	Time	Received by: (Signature)			Date	Time	
Relinquished by: (Signature)				Date	Time	Received for Laboratory: (Signature) Jim Morin			Date 9/30/92	Time 10:20 AM	
Sample Disposal Method:				Disposed of by: (Signature)			Date			Time	
SAMPLE COLLECTOR				ANALYTICAL LABORATORY							
5 State Street Montpelier, VT 05602 (802) 229-4600 Fax: (802) 229-5876				THE JOHNSON COMPANY, INC. Environmental Sciences and Engineering							
				Scites ⁺ transported via VT Transit							



P.O. Box 339
Randolph, Vermont 05060-0339
(802) 728-6313

78611
March 11, 1992

Mike Pottinger
The Johnson Company
5 State Street
Montpelier, VT 05602

RE: Fotohut Free Product Analysis Sample # 2-0367

Dear Mike:

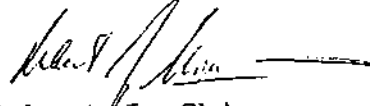
I have attached copies of the hydrocarbon fingerprint for Tanks #2 & 3 solvents which we received on 3/6/92. Verbal results were given on 3/9/92.

All of the standards and samples were analyzed at a 1% dilution in Dichloromethane. The patterns for both tanks are quite similar, however, neither matched the patterns for the 3 petroleum products (gasoline, kerosene, diesel). The tank solvents have peaks in common with the latter portion of the gasoline chromatograph and the earlier portion of the kerosene chromatograph.

To further categorize the solvents an EPA Method 8240 analysis for purgeable organics was performed. Results showed the unknown solvent to be a mixture of Toluene, Xylenes, Ethylbenzene, and Tetrachloroethylene with other (higher boiling) compounds such as C_9H_{12} and $C_{10}H_{12}$ present in the mixture.

I hope with these combined analyses, you have sufficient information to categorize these unknown organic mixtures. Please call me if you have any further questions.

Sincerely,



Robert J. Shipman
Organic Chemist
RJS/cha

Page 1 of 3

LABORATORY REPORT

CLIENT NAME: The Johnson Company
 ADDRESS: 5 State Street
 Montpelier, VT 05602
 SITE LOCATION: Fothut, Rutland, VT
 ATTENTION: Mike Pottinger

LABORATORY NO.: 2-0367
 PROJECT NO.: 78611
 DATE OF SAMPLE: 3/6/92
 DATE OF ANALYSIS: 3/8/92
 DATE OF REPORT: 3/11/92

VOLATILE ORGANIC DATA FOR WASTE SOLVENT DILUTIONS RESULTS IN PPM (volume/volume) QUALITY CONTROL DATA

PARAMETER	Sample 4	Sample 5	PRACTICAL
	Tank #2	Tank #3	QUANTITATION LIMIT
Chloromethane	BPQL	BPQL	2500
Bromomethane	BPQL	BPQL	2500
Vinyl Chloride	BPQL	BPQL	2500
Chloroethane	BPQL	BPQL	2500
Methylene Chloride	BPQL	BPQL	2500
Acetone	BPQL	BPQL	2500
Trichlorofluoromethane	BPQL	BPQL	1250
Carbon Disulfide	BPQL	BPQL	1250
1,1-Dichloroethene	BPQL	BPQL	1250
1,1-Dichloroethane	BPQL	BPQL	1250
1,2-Dichloroethene(Total)	BPQL	BPQL	1250
Chloroform	BPQL	BPQL	1250
1,2-Dichloroethane	BPQL	BPQL	1250
2-Butanone (MEK)	BPQL	BPQL	5000
1,1,1-Trichloroethane	BPQL	BPQL	1250
Carbon Tetrachloride	BPQL	BPQL	1250
Vinyl Acetate	BPQL	BPQL	5000
1,2-Dichloromethane	BPQL	BPQL	1250
1,2-Dichloropropane	BPQL	BPQL	1250
1,3-Dichloropropene	BPQL	BPQL	1250
1,1-Dichloroethene	BPQL	BPQL	1250
1,2-Dibromochloromethane	BPQL	BPQL	1250
1,1,2-Trichloroethane	BPQL	BPQL	1250
Benzene	BPQL	BPQL	1250
1,3-Dichloropropene	BPQL	BPQL	1250
2-Chloroethylvinylether	BPQL	BPQL	1250
Bromoform	BPQL	BPQL	1250
4-Methyl-2-Pentanone (MIBK)	BPQL	BPQL	5000
2-Hexanone	BPQL	BPQL	5000
Tetrachloroethene	1030	848	1250
1,1,2,2-Tetrachloroethane	BPQL	BPQL	1250
Toluene	643	570	1250
Chlorobenzene	BPQL	BPQL	1250
Ethylbenzene	985	908	1250
Styrene	BPQL	BPQL	2000
m-Xylene	2290	2280	2000
o,p-Xylene	2810	2530	2000
1,3-Dichlorobenzene	BPQL	BPQL	2000
1,2-Dichlorobenzene	BPQL	BPQL	2000
1,4-Dichlorobenzene	BPQL	BPQL	2000

EPA Method 8240, SW 846, 3RD ED., Nov 1986

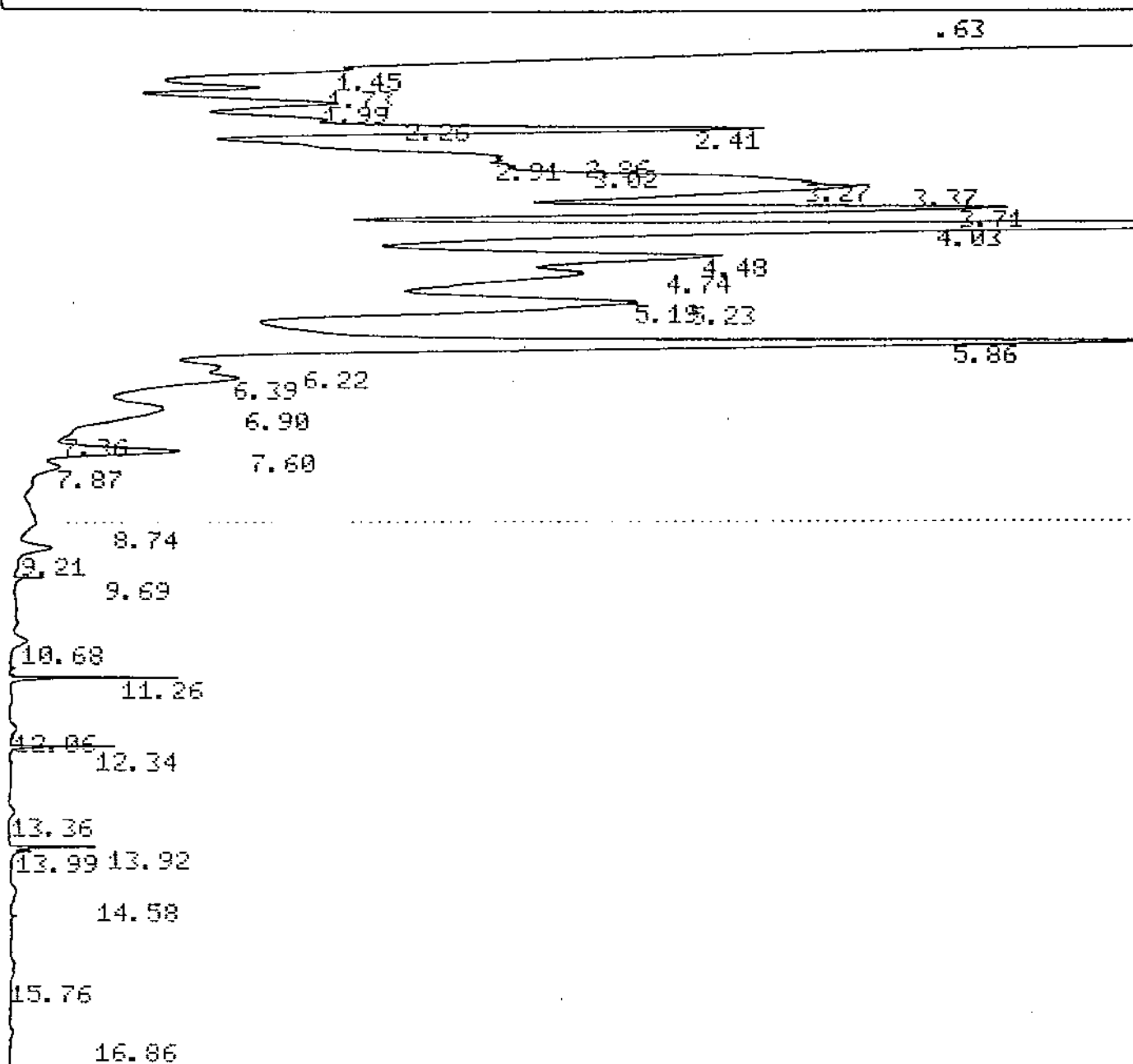
BPQL = Below Practical Quantitation Limit.

Note: All compounds found were in the range of the EPA Method 8240 PQL level
 but above our Method Detection Limits.

Am #3 SOLV. #5

HANNEL A

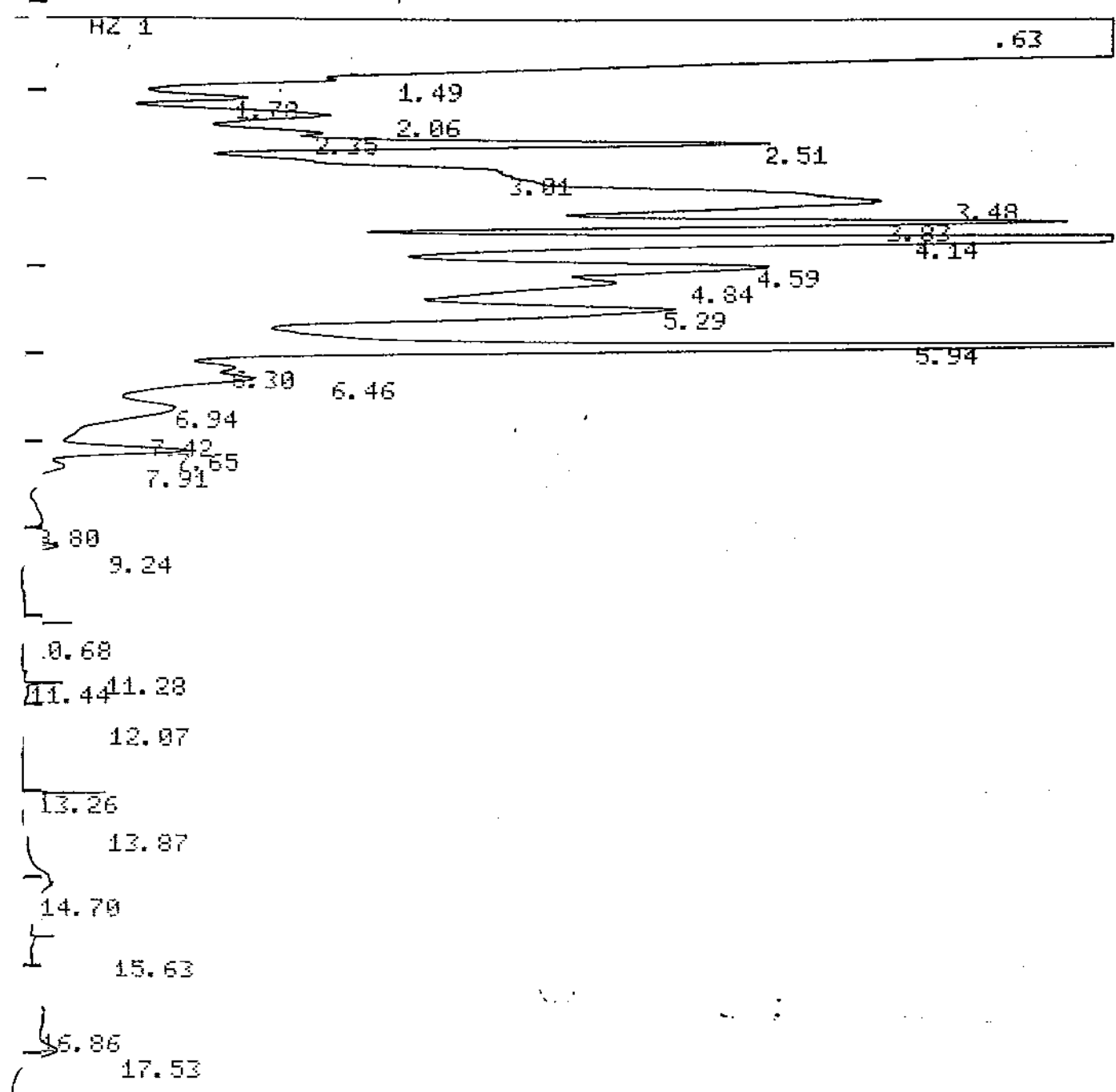
INJECT 03/08/92 10:15:39



067

hwat 7 sicut 4 1970

HEL R INJECT :03/08/92 11:25:36





P.O. Box 339
Randolph, Vermont 05060-0339
(802) 728-6313

August 31, 1993
78611

Don Maynard
The Johnson Co
5 State Street
Montpelier VT 05060

RECEIVED
SEP 1 1993
THE JOHNSON CO. INC.
MONTPELIER, VERMONT

Subject: Sample Nos 2-0367

Dear Don,

As you requested, we are supplying copies of the chromatograms that we obtained during the analysis of these samples for volatile organics.

Please call me if there are any questions.

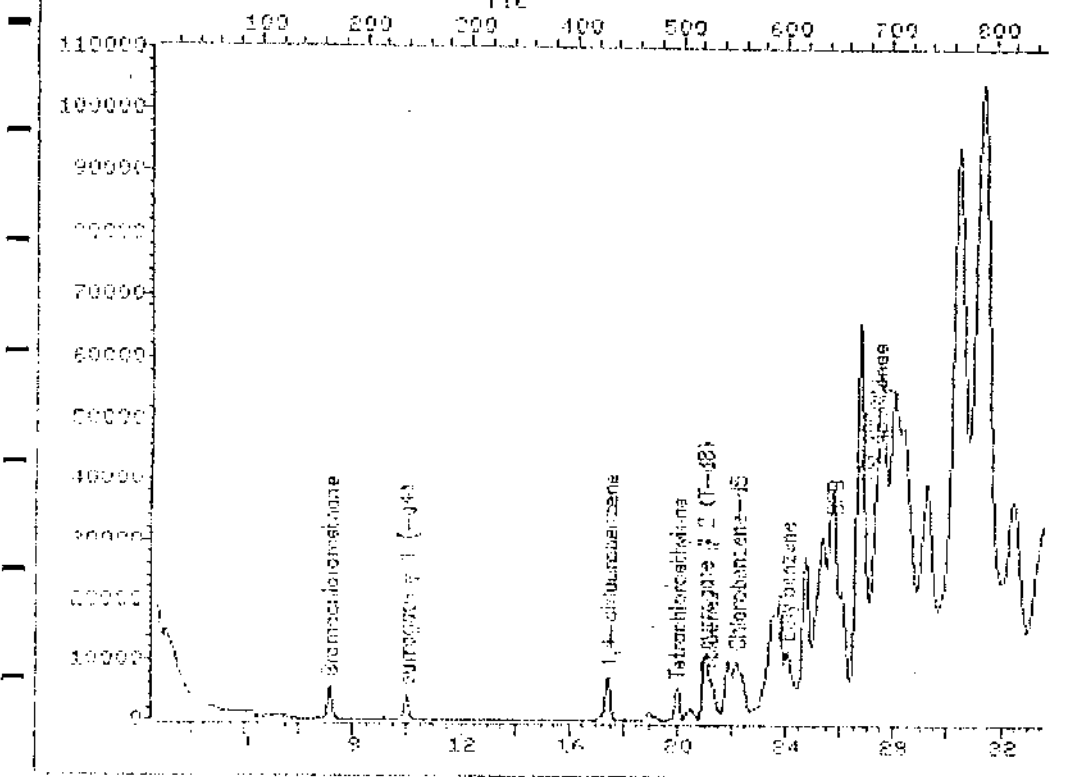
Sincerely,

A handwritten signature in dark ink, appearing to read "Roderick Lamothe". The signature is written in a cursive, flowing style.

Roderick Lamothe
SCITEST INC.

TOTAL ION CHROMATOGRAM

File: R0001 35.0-260.0 amu, 2-0357 SOIL#1 3/6/92JCO- FOTOFUT MECH EX



Data File: R0001:02

Quant Output File: R0001:QT

Name: 2-0357 SOIL#1 3/6/92

File: 300- FOTOFUT MECH EX

Id File: 30_010:00

Title: 5 Point Calibration F09 0240 & 674

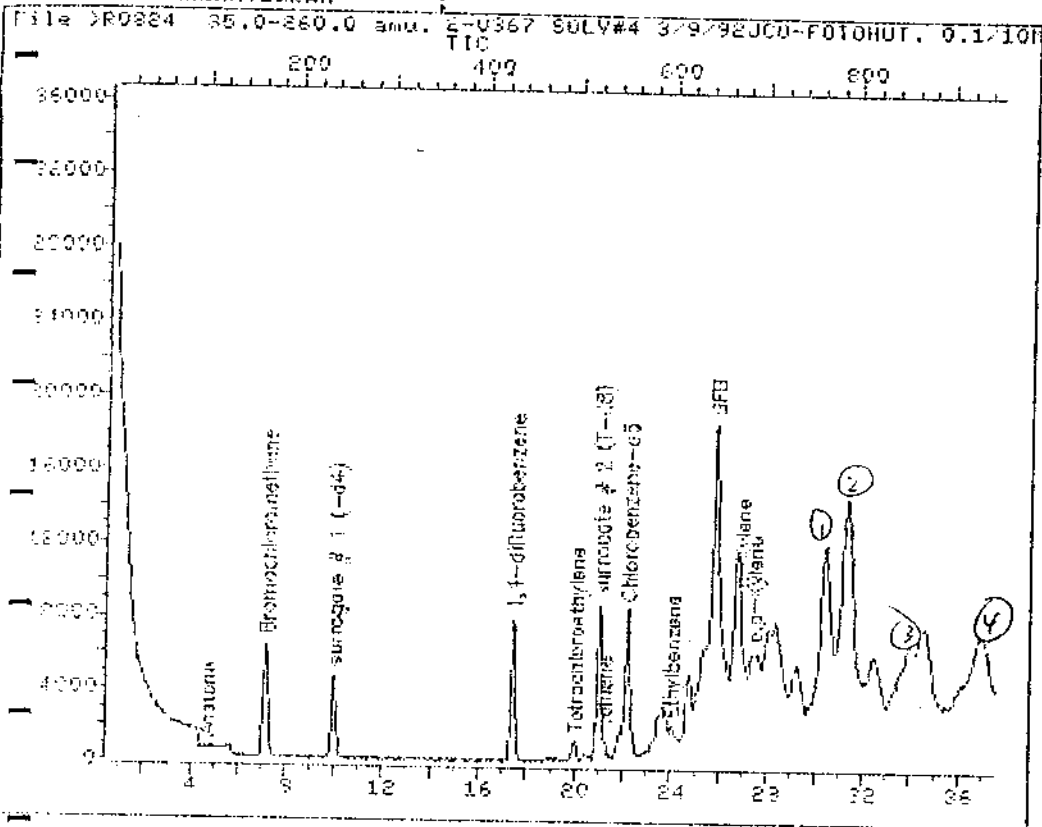
Last Calibration: 920706 14:24

Operator ID: SS

Quant Time: 920706 10:56

Injected at: 920706 20:22

TOTAL ION CHROMATOGRAM



Data File: R0924:02 Quant Output File: R0924:QT
 Name: 2-0367 SOLV#4 3/9/92
 Conc: JCO-FOTCHUT. 0.1/101ML, .002/5ML

14 File: ID_010:SC
 Title: 5 Point Calibration FOR B240 S 624
 1st Calibration: 920309 14:24

Operator ID: RS
 Print Time: 920309 14:15
 Printed at: 920309 13:23

(1) 105, 91, 77, 65, 39, 29

C_9H_{12}

75 → 46.7. *nitrobenzene*

(2) 105, 57, 43, 35, 27, 120

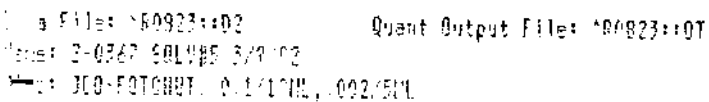
C_9H_{12}

47 → 35.2

(4) 105, 120, 77, 65, 39, 29
 63.2 C_9H_{12}

0.1 → 10.1 mL M6011 100
 .002 → 2.0 mL 2500 } $\times 250,000$ for ppm
 250 for ppm

FILE 100 CREDITORS ;
FILE 10083 35.0-250.0 AMU. 2-0167 SOL945 379-92000-F070H07. 0.1/100



* Calibration: 926306 14:24

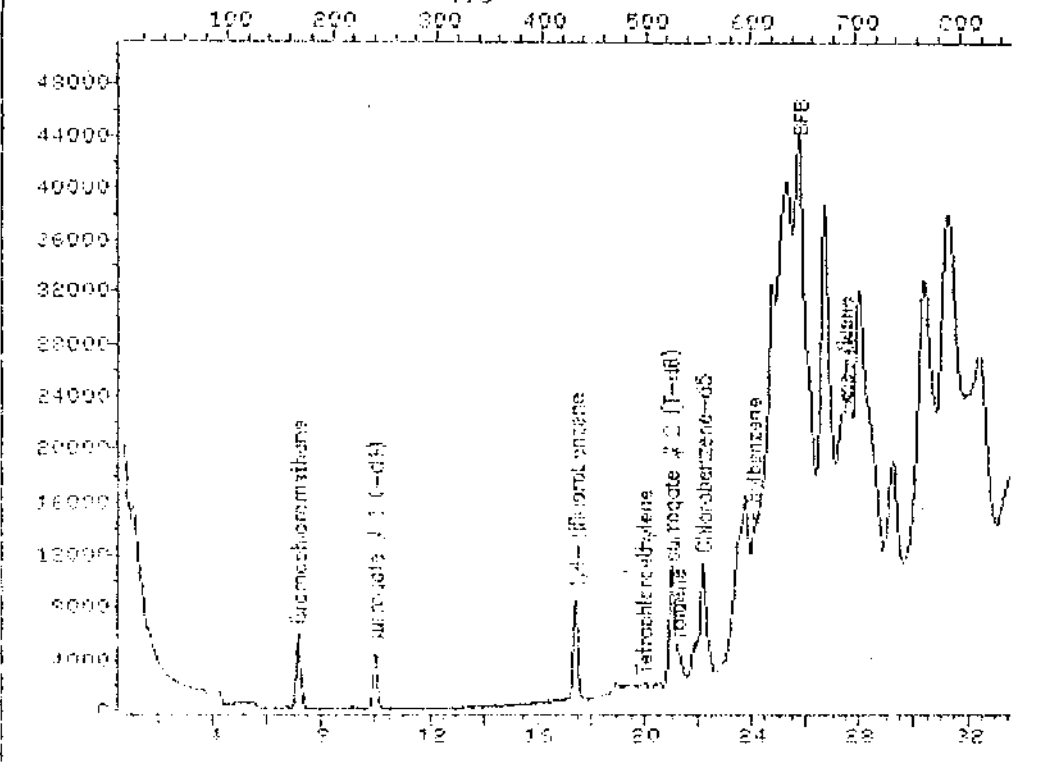
Operator ID: 85
 Start Time: 220702 12:46
 Ended at: 220702 13:54

① Same cost for material +
material = /
soln. #4.

2. 55, 83, 92, 59, 41 over

672
C10H12

File: PR0803 35.0-260.0 amu, 2-0367 SOIL#2 3/5/92JCG- FOTCHUT NEOH EX

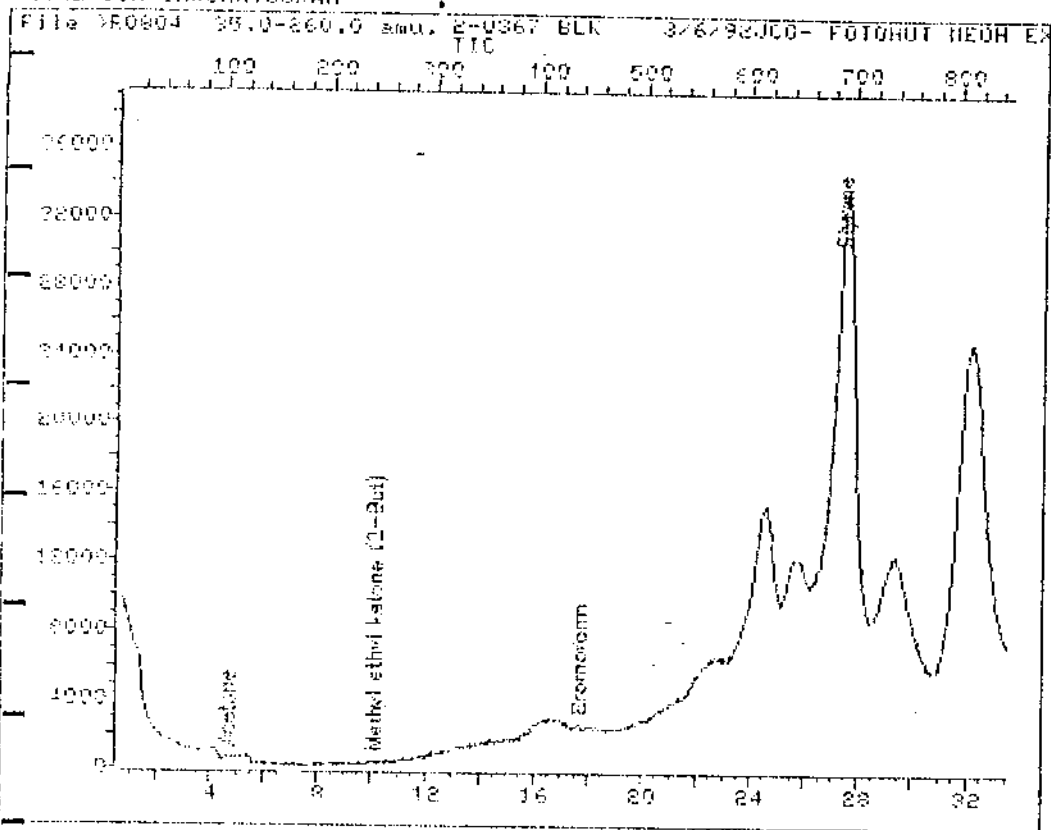


Data File: *R0203::R2 Grant Output File: *R0203::R2
Name: 2-0367 SGI#27 7/6/02
Mfg: 000- 001044T USOH EXT

ID File: 10_510-00
 Title: 5 Point Calibration 500 9200 & 824
 Last Calibration: 020706 14:24

Operator ID: 02
Quest Time: 000000 0000
Injected at: 000000 0000

TOTAL ION CHROMATOGRAM



Data File: 80804:02 Quant Output File: 80804:QT

Name: 2-0367 BLK 3/6/92

Lab: JCB- FOTOMUT NEOH EX

14 File: 10_CLQ:SC

Title: 5 Point Calibration FOR 8040 & 624

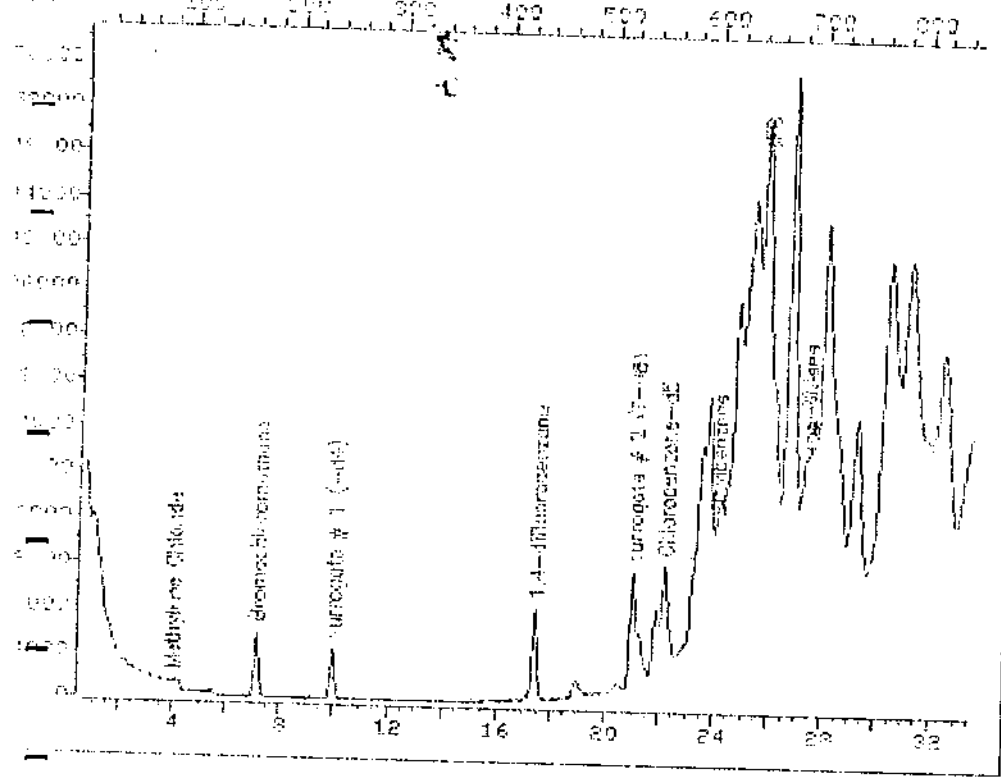
Last Calibration: 920306 14:24

Operator: JC: BS

Start Time: 920306 22:02

Injected at: 920306 22:17

1. TOR CHROMATOGRAM
 File: R0205 35.0-255.0 amu. 2-0367 SOIL#3 3.6/92JCU- FOTOPUT NEGR E3



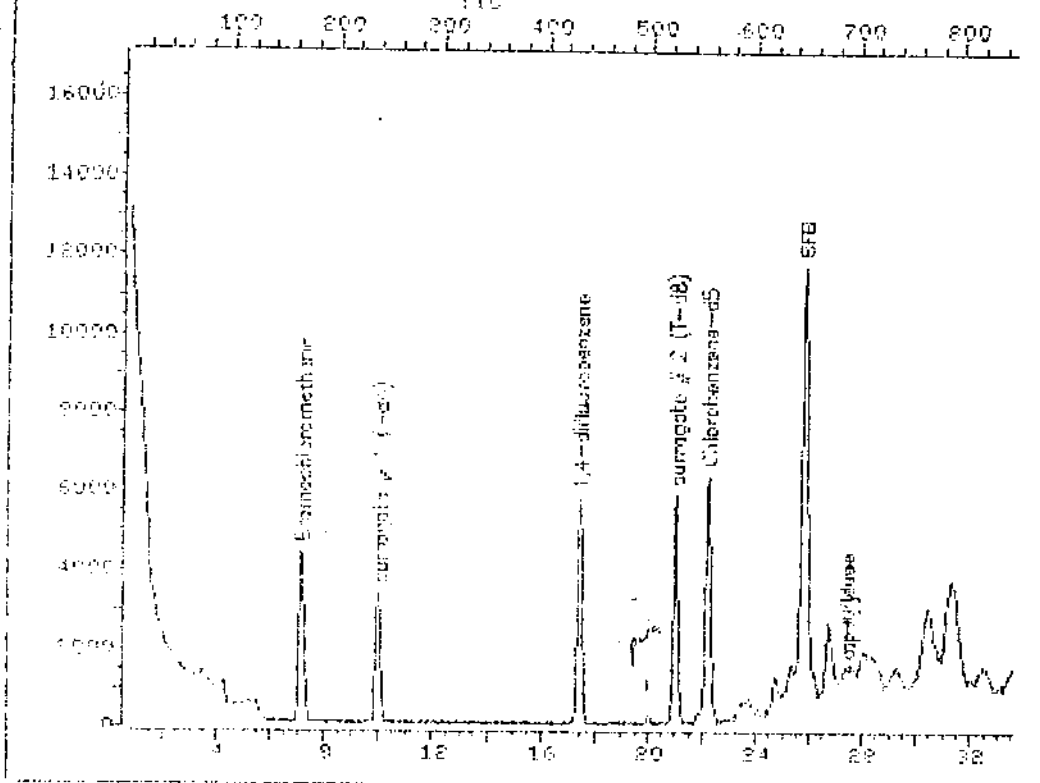
1. File: R0205:02 Quant Output File: R0205:02
 2. 2-0367 SOIL#3 3.6/92
 3. FOTOPUT NEGR EXT

4. File: ID_010:0C
 5. 5 Point Calibration for 8240 S 624
 6. Calibration: 920706 1:14

7. 10: 6S
 8. 920706 23:77
 9. 920706 22:56

TOTAL ION CHROMATOGRAM

File: 180814 35.0-260.0 amu. 2-0367 SOLV#4 3/8/92JCO-POTOMUT NEOH DIL



Data File: 180814:01

Quant Output File: 180814:QT

Name: 2-0367 SOLV#4 3/8/92

Misc: JCO-POTOMUT NEOH DIL

IS File: 18_010:00

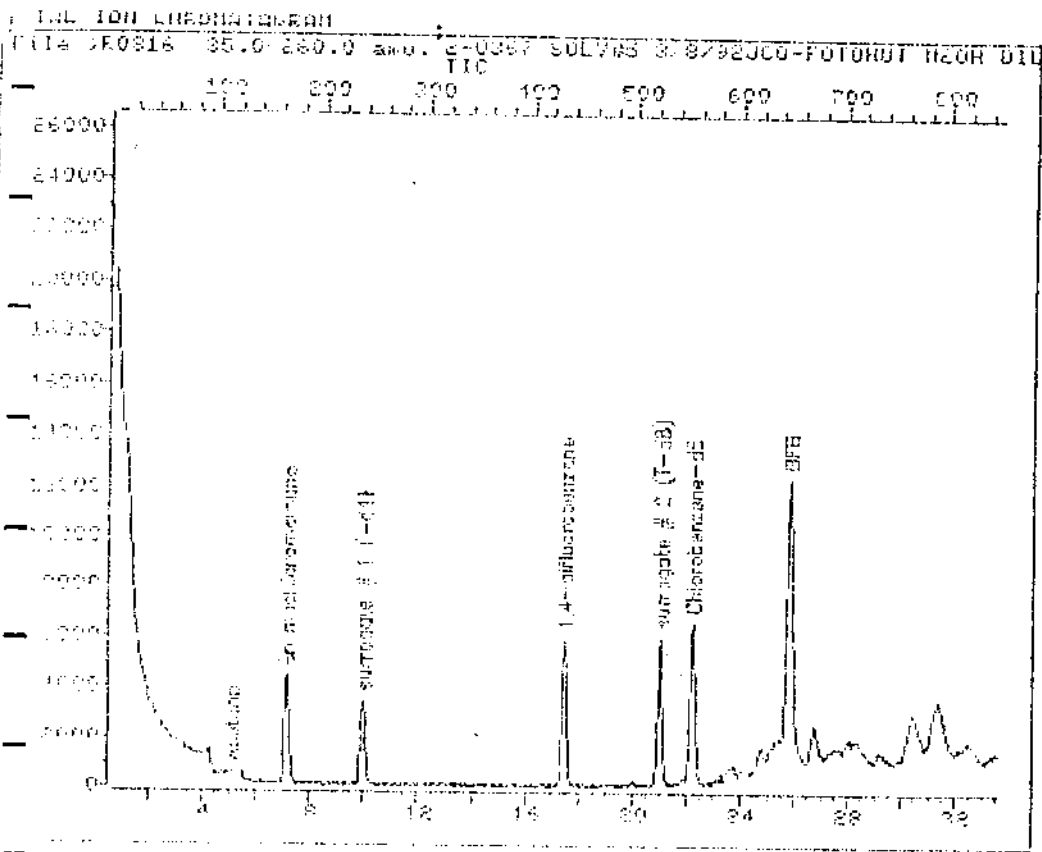
Title: 5 Point Calibration FOR 8240 & 62

Last Calibration: 020306 14:24

Operator ID: PS

Acq. TS: 020306 14:20

Injected at: 020300 15:54



to File: 180816:01 Quant Output File: 180816:01
Date: 2-0387 SOLVRS 30/8/92
File: 300-FOTORUT H2OR D10

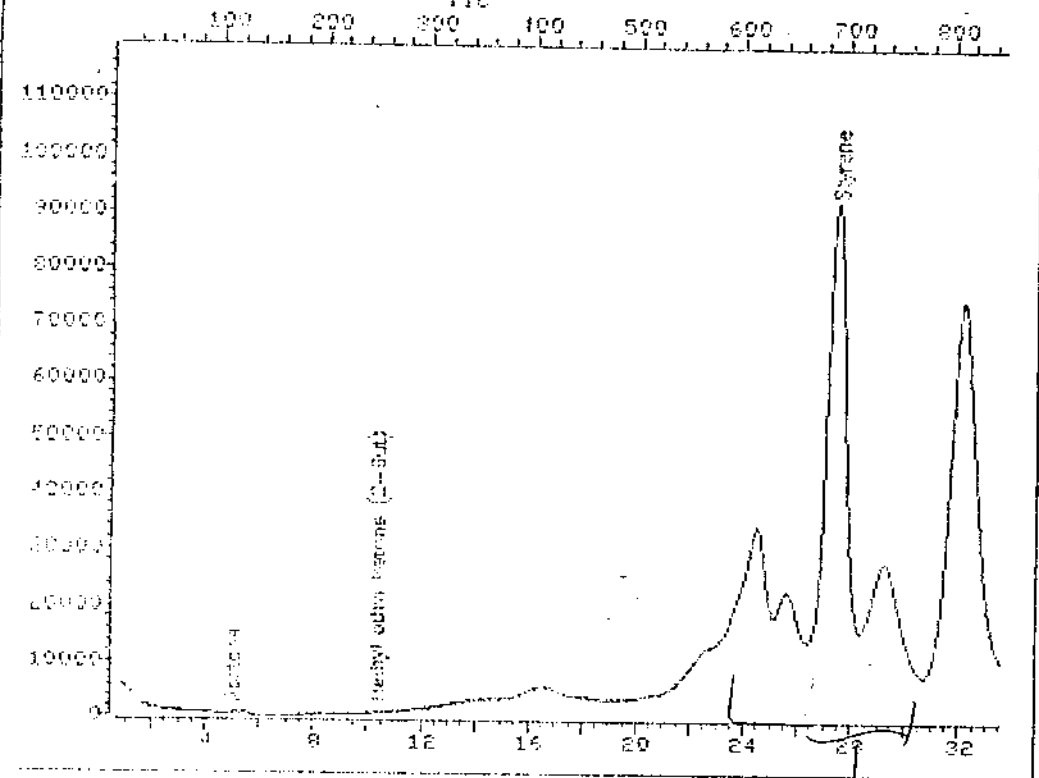
to File: 18_016:01
Title: 5 Point Calibration FOR 9240 A 024
at Calibration: 920301 14:31

Operator 18: RS
Print Time: 920318 17:42
Printed at: 9-0319 17:12

Some carry-over to
next run

TOTAL ION CHROMATOGRAM

File: PR0802 35.0-260.0 amu. 2-0057 ELK 3/6/92 JCO- F010HUT NEUR EX



Data File: PR0802:02

Quant Output File: PR0802:QT

Name: 2-0057 ELK 3/6/92

Mass: JCO- F010HUT NEUR EXT

Id File: ID_CLC:10

Title: 5 Point Calibration MPS 3240 & 624

Last Calibration: 920306 14:24

Operator ID: PS

Quant Time: 920306 21:00

Injected at: 920306 21:00

Slight ~~excess~~

after run #5

See DLK -

NI

Xylene

*curry over -
only junk*

CLIENT NAME: The JOHNSON Company
ADDRESS: 5 State Street
Montpelier, VT 05602
SITE LOCATION: Fotohut, Rutland, VT
ATTENTION: Mike Pottinger

LABORATORY NO.: 78611
PROJECT NO.: 78611
DATE OF SAMPLE: 1/15/92
DATE OF ANALYSIS: 1/29/92
DATE OF REPORT: 2/14/92

VOLATILE ORGANIC DATA FOR WATER SAMPLE
RESULTS IN MICROGRAMS/LITER (ppb)

PARAMETER	Groundwater	TANK #1	PRACTICAL
			QUANTITATION
			LIMIT
Chloromethane	BPQL		600
Bromomethane	BPQL		300
Vinyl Chloride	BPQL		300
Chloroethane	BPQL		300
Ethylene Chloride	BPQL		300
Acetone	BPQL		600
Trichlorofluoromethane	BPQL		300
Carbon Disulfide	BPQL		300
1,1-Dichloroethene *	BPQL		300
1,1-Dichloroethane	BPQL		300
1,2-Dichloroethene (Total)	BPQL		300
Chloroform	BPQL		150
1,2-Dichloroethane	BPQL		150
2-Butanone (MEK)	BPQL		600
1,1,1-Trichloroethane	BPQL		150
Carbon Tetrachloride	BPQL		300
Vinyl Acetate	BPQL		600
Bromodichloromethane	BPQL		150
1,2-Dichloropropane	BPQL		150
c-1,3-Dichloropropene	BPQL		150
Trichloroethene *	BPQL		150
Dibromochloromethane	BPQL		150
1,1,2-Trichloroethane	BPQL		150
Benzene *	BPQL		150
t-1,3-Dichloropropene	BPQL		150
2-Chloroethylvinylether	BPQL		300
Bromoform	BPQL		300
4-Methyl-2-Pentanone (MIBK)	BPQL		600
2-Hexanone	BPQL		600
Tetrachloroethene	BPQL		150
1,1,2,2-Tetrachloroethane	BPQL		150
Toluene *	BPQL		150
Chlorobenzene *	BPQL		150
Ethylbenzene	BPQL		150
Styrene	BPQL		300
m-Xylene	686	31256	300
o,p-Xylene	570		300
1,3-Dichlorobenzene	BPQL		300
1,2-Dichlorobenzene	BPQL		300
1,4-Dichlorobenzene	BPQL		300

EPA Method 8240, SW 846, 3rd Ed., Nov 1986.
BPQL = Below Practical Quantitation Limits.

* = CLP Spike Compound (5 total)

LABORATORY REPORT

CLIENT NAME: Chittenden Bank
 SAMPLE LOCATION: Fotechut, Rutland VT
 LABORATORY NUMBER: 1118-90
 PROJECT NUMBER: 89721

DATE OF SAMPLE: 08-15-90
 DATE OF RECEIPT: 08-15-90
 DATE ANALYZED: 08-24-90

PARAMETER	Solvent H	Solvent I	Soil F	Soil C
Chloromethane	<240000	<50000	<5	<3
Bromoform	<240000	<50000	<5	<3
Bromomethane	<240000	<50000	<5	<3
Dibromochloromethane	<240000	<50000	<5	<3
Vinyl Chloride	<240000	<50000	<5	<3
2-Chloroethylvinyl Ether	<240000	<50000	<5	<3
Chloroethane	<240000	<50000	<5	<3
Methylene Chloride	<240000	<50000	<5	<3
Trichloroethylene	<240000	<50000	<5	<3
Trichlorofluoromethane	<240000	<50000	<5	<3
1,1-Dichloroethene	<240000	<50000	<5	<3
1,1-Dichloroethane	<240000	<50000	<5	<3
cis or trans-1,2-Dichloroethylene	<240000	<50000	<5	<3
Chloroform	<240000	<50000	<5	<3
1,2-Dichloroethane	<240000	<50000	<5	<3
1,1,1-Trichloroethane	<240000	<50000	<5	<3
Carbon Tetrachloride	<240000	<50000	<5	<3
Bromodichloromethane	<240000	<50000	<5	<3
1,2-Dichloropropane	<240000	<50000	<5	<3
trans-1,3-Dichloropropene	<240000	<50000	<5	<3
cis-1,3-Dichloropropene	<240000	<50000	<5	<3
1,1,2,2-Tetrachloroethane	<240000	<50000	<5	<3
1,1,2-Trichloroethane	<240000	<50000	<5	<3
Tetrachloroethylene - dry cleaning solvent	137000	<50000	238	<3
Benzene	<240000	<50000	<5	<3
Toluene	Int	Int	Int	<3
Ethylbenzene	Int	Int	Int	<3
Chlorobenzene	<240000	<50000	<5	<3
1,4-Dichlorobenzene	<240000	<50000	<5	<3
1,3-Dichlorobenzene	<240000	<50000	<5	<3
1,2-Dichlorobenzene	<240000	<50000	<5	<3
Xylenes	Int	Int	Int	<3
8020 - Miscellaneous double bonded				
Hydrocarbons as Xylenes	>23%	>15.6%	>143000	<3

EPA Method 8010 & 8020; All results reported as ug/kg or ppb. *parts per Billion*
 Toluene, Ethylbenzene and Xylenes were not quantitated due to interference peaks from the sample matrix.

Respectfully submitted,

SCITEST, INC.

Roderick J. Lemoine
 Roderick J. Lemoine
 Laboratory Director

RJL/trs





IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 1 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2-FOTOHUT
Report Date: 10/19/93
Collected: 09/30/93
Received: 10/05/93
Analyzed: 10/07/93
By: GMT

IEA ID: J104-029-01
Sample: MW-1S
Type: Soil
Container: Glass

Dilution
Factor: 1

Purgable Halocarbons

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt.)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA
An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 2 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2-FOTOHUT

IEA ID: J104-029-01
Sample: MW-1S

Purgable Aromatics

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL
33	Xylenes	1	2
34	Methyl-t-butylether	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	87 %
1,4-Difluorobenzene	80 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-029-02
Project:	1-0342-2-FOTOHUT	Sample:	MW-3
Report Date:	10/19/93	Type:	Soil
Collected:	09/30/93	Container:	Glass
Received:	10/05/93		
Analyzed:	10/07/93	Dilution	
By:	GMT	Factor:	2.1

Purgable Halocarbons

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt.)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-029-02
Project: 1-0342-2-FOTOHUT Sample: MW-3

Purgable Aromatics

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt)
30	Benzene	1	BQL
31	Ethylbenzene	1	18
32	Toluene	1	BQL
33	Xylenes	1	29
34	Methyl-t-butylether	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	103 %
1,4-Difluorobenzene	92 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Smaller amount of sample analyzed due to the presence of non-target compounds.

FORM MA8010/2(S) Rev. 082692



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020

(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-029-03
Project:	1-0342-2-FOTOHUT	Sample:	MW-4
Report Date:	10/19/93	Type:	Soil
Collected:	10/01/93	Container:	Glass
Received:	10/05/93		
Analyzed:	10/11/93	Dilution	
By:	GMT	Factor:	1.1

Purgable Halocarbons

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt.)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 2 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2-FOTOHUT

IEA ID: J104-029-03
Sample: MW-4

Purgable Aromatics

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL
33	Xylenes	1	1
34	Methyl-t-butylether	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	84 %
1,4-Difluorobenzene	87 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the
PQL by the dilution factor.



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 1 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2-FOTOHUT
Report Date: 10/19/93
Collected: 10/01/93
Received: 10/05/93
Analyzed: 10/07/93
By: GMT

IEA ID: J104-029-04
Sample: MW-5
Type: Soil
Container: Glass

Dilution
Factor: 56

Purgable Halocarbons

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt.)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA
An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 2 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2-FOTOHUT

IEA ID: J104-029-04
Sample: MW-5

Purgable Aromatics

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt)
30	Benzene	1	BQL
31	Ethylbenzene	1	560
32	Toluene	1	67
33	Xylenes	1	3,200 <i>ppb</i>
34	Methyl-t-butylether	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	47 %
1,4-Difluorobenzene	43 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.

Analysis Report: EPA Methods 8010/8020
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-029-05
Project:	1-0342-2-FOTOHUT	Sample:	MW-6
Report Date:	10/19/93	Type:	Soil
Collected:	10/01/93	Container:	Glass
Received:	10/05/93		
Analyzed:	10/07/93	Dilution	
By:	GMT	Factor:	66

Purgable Halocarbons

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt.)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 2 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2-FOTOHUT

IEA ID: J104-029-05
Sample: MW-6

Purgable Aromatics

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt)
30	Benzene	1	BQL
31	Ethylbenzene	1	930
32	Toluene	1	BQL
33	Xylenes	1	7,200
34	Methyl-t-butylether	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	65 %
1,4-Difluorobenzene	68 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-029-06
Project:	1-0342-2-FOTOHUT	Sample:	MW-7
Report Date:	10/19/93	Type:	Soil
Collected:	10/01/93	Container:	Glass
Received:	10/05/93		
Analyzed:	10/07/93	Dilution	
By:	GMT	Factor:	1

Purgable Halocarbons

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt.)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 2 OF 2 PAGES)

Client: Johnson Company
Project: 1-0342-2-FOTOHUT

IEA ID: J104-029-06
Sample: MW-7

Purgable Aromatics

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt)
30	Benzene	1	BQL
31	Ethylbenzene	1	BQL
32	Toluene	1	BQL
33	Xylenes	1	BQL
34	Methyl-t-butylether	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	78 %
1,4-Difluorobenzene	87 %

Comment:

BQL = Below Quantitation Limit

PQL = Practical Quantitation Limit

Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 1 OF 2 PAGES)

Client:	Johnson Company	IEA ID:	J104-031-01
Project:	1-0342-2(044), 77A Woodstock	Sample:	MW8-5
Report Date:	10/28/93	Type:	Soil
Collected:	10/11/93	Container:	Glass
Received:	10/14/93		
Analyzed:	10/25/93	Dilution	
By:	GMT	Factor:	270

Purgable Halocarbons

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt.)
1	Bromodichloromethane	1	BQL
2	Bromoform	1	BQL
3	Bromomethane	1	BQL
4	Carbon tetrachloride	1	BQL
5	Chlorobenzene	1	BQL
6	Chloroethane	1	BQL
7	2-Chloroethylvinyl ether	1	BQL
8	Chloroform	1	BQL
9	Chloromethane	1	BQL
10	Dibromochloromethane	1	BQL
11	1,2-Dichlorobenzene	1	BQL
12	1,3-Dichlorobenzene	1	BQL
13	1,4-Dichlorobenzene	1	BQL
14	Dichlorodifluoromethane	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	trans-1,2-Dichloroethene	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	1	BQL
21	trans-1,3-Dichloropropene	1	BQL
22	Methylene chloride	1	BQL
23	1,1,2,2-Tetrachloroethane	1	BQL
24	Tetrachloroethene	1	BQL
25	1,1,1-Trichloroethane	1	BQL
26	1,1,2-Trichloroethane	1	BQL
27	Trichloroethene	1	BQL
28	Trichlorofluoromethane	1	BQL
29	Vinyl chloride	1	BQL



IEA

An Aquarion Company

Analysis Report: EPA Methods 8010/8020
(PAGE 2 OF 2 PAGES)

Client: Johnson Company IEA ID: J104-031-01
Project: 1-0342-2(044), 77A Woodstock Sample: MW8-5

Purgable Aromatics

Number	Compound	PQL (ug/kg dry wt.)	Result (ug/kg dry wt)
30	Benzene	1	BQL
31	Ethylbenzene	1	3,800
32	Toluene	1	270
33	Xylenes	1	39,000
34	Methyl-t-butylether	1	BQL

Surrogate Standard Recovery:

1,4-Dichlorobutane	95 %
1,4-Difluorobenzene	100 %

Comment:

BQL = Below Quantitation Limit
PQL = Practical Quantitation Limit
Quantitation limits for this sample are obtained by multiplying the PQL by the dilution factor.
Smaller amount of sample analyzed due to the high concentration of target compounds present.
Quantitation limit elevated due to smaller amount of sample analyzed.
FORM MA8010/2(S) Rev. 082692

CHAIN OF CUSTODY RECORD

No 1104

Client/Project Name 1-0342-2-FOTOHUT			Project Location RUTLAND, VT			ANALYSES						SAVE XTRA SOIL FOR ADDITIONAL ANALYSIS IF necessary
Project No. 1-0342-2			Field Logbook No. DM 8A									
Sampler (Signature) 			Chain of Custody Tape No. 1032									
Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample							REMARKS	
MW15	9/30	10:30		TWO GLASS SOIL	✓						PID 20PPM	
MW3	9/30	14:45		TWO GLASS SOIL	✓						PID 115 PPM	
MW4	10/1	12:05		TWO GLASS SOIL	✓						PID 7ppm - BACKGROUND	
MW5	10/1	12:30		TWO GLASS SOIL	✓						PID 190 PPM	
MW6	10/1	14:10		" "	✓						PID 250 PPM	
MW7	10/1	15:40		" "	✓						PID 0.7ppm need lower detection limits	
Relinquished by: (Signature) 					Date 10/1/93	Time 14:30	Received by: (Signature)			Date	Time	
Relinquished by: (Signature)					Date	Time	Received by: (Signature)			Date 10/5/93	Time 16:00	
Relinquished by: (Signature)					Date	Time	Received for Laboratory: (Signature) 			Date 10/5/93	Time 16:00	
Sample Disposal Method:					Disposed of by: (Signature)					Date	Time	
SAMPLE COLLECTOR					ANALYTICAL LABORATORY							
5 State Street Montpelier, VT 05602 (802) 229-4600 Fax: (802) 229-5876					THE JOHNSON COMPANY, INC. Environmental Sciences and Engineering							
					IEA N. BILLENICA, MMS RESULTS TO DM Magnolia - JOHNSON CO. INVOICE TO CHRIS BISHOP CHITTENDEN BANK 2 BURLINGTON SQUARE PO BOX 820 BURLINGTON, VT 05402							

CLIENT NAME: The JOHNSON Company
 ADDRESS: 5 State Street
 Montpelier, VT 05602
 SITE LOCATION: Fotohut, Rutland, VT
 ATTENTION: Mike Pottinger

LABORATORY NO.: 2-0367
 PROJECT NO.: 78611
 DATE OF SAMPLE: 3/5-6/92
 DATE OF ANALYSIS: 3/6/92
 DATE OF REPORT: 3/11/92

VOLATILE ORGANIC DATA FOR SOIL SAMPLES
 RESULTS IN MICROGRAMS/KILOGRAM (ppb) wet weight

PARAMETER	Soil #1 SP 3-5 <i>SPILL PILE</i>	Soil #2 T1 W7 <i>TANK 1 WGT</i>	Soil #3 T1 W9 <i>TANK 1 WGT</i>	Dup #1 SP 3-5	%RD	PRACTICAL QUANTITATION LIMIT
Bromomethane	BPQL	BPQL <i>7'8's</i>	BPQL <i>9'8's</i>	BPQL	---	3000
Bromomethane	BPQL	BPQL	BPQL	BPQL	---	3000
Vinyl Chloride	BPQL	BPQL	BPQL	BPQL	---	3000
Bromoethane	BPQL	BPQL	BPQL	BPQL	---	3000
Methylene Chloride	BPQL	BPQL	BPQL	BPQL	---	3000
Acetone	BPQL	BPQL	BPQL	BPQL	---	6000
Trichlorofluoromethane	BPQL	BPQL	BPQL	BPQL	---	3000
Carbon Disulfide	BPQL	BPQL	BPQL	BPQL	---	3000
1,1-Dichloroethene	BPQL	BPQL	BPQL	BPQL	---	1500
1,2-Dichloroethane	BPQL	BPQL	BPQL	BPQL	---	1500
1,1,2-Dichloroethane (Total)	BPQL	BPQL	BPQL	BPQL	---	1500
Chloroform	BPQL	BPQL	BPQL	BPQL	---	1500
1,2-Dichloroethane	BPQL	BPQL	BPQL	BPQL	---	1500
2-Butanone (MEK)	BPQL	BPQL	BPQL	BPQL	---	6000
1,1,1-Trichloroethane	BPQL	BPQL	BPQL	BPQL	---	1500
Carbon Tetrachloride	BPQL	BPQL	BPQL	BPQL	---	1500
Vinyl Acetate	BPQL	BPQL	BPQL	BPQL	---	6000
Bromodichloromethane	BPQL	BPQL	BPQL	BPQL	---	1500
1,2-Dichloropropane	BPQL	BPQL	BPQL	BPQL	---	1500
1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	---	1500
Trichloroethene	BPQL	BPQL	BPQL	BPQL	---	1500
Dibromochloromethane	BPQL	BPQL	BPQL	BPQL	---	1500
1,1,2-Trichloroethane	BPQL	BPQL	BPQL	BPQL	---	1500
Benzene	BPQL	BPQL	BPQL	BPQL	---	1500
1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	---	1500
2-Chloroethylvinylether	BPQL	BPQL	BPQL	BPQL	---	3000
Bromoform	BPQL	BPQL	BPQL	BPQL	---	3000
4-Methyl-2-Pentanone (MIBK)	BPQL	BPQL	BPQL	BPQL	---	6000
2-Hexanone	BPQL	BPQL	BPQL	BPQL	---	6000
Tetrachloroethene	6820	BPQL	BPQL	7720	8.8%	1500
1,1,2,2-Tetrachloroethane	BPQL	BPQL	BPQL	BPQL	---	1500
Toluene	3490	BPQL	BPQL	4160	12.4%	1500
Chlorobenzene	BPQL	BPQL	BPQL	BPQL	---	1500
Stylybenzene	3780	1589	1850	8340	0.5%	1500
Styrene	BPQL	BPQL	BPQL	BPQL	---	3000
m-Xylene	23,000	3360	6540	26,800	10.8%	3000
p-Xylene	35,500	4300	4300	32,100	7.1%	3000
1,3-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	---	3000
1,2-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	---	3000
1,4-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	---	3000

Note 1

EPA Method 8240, SW846, 3RD ED., Nov 1986 by Methanol Extraction.

BPQL = Below Practical Quantitation Limit.

Note 1: A trace of Tetrachloroethylene detected at an approximate concentration of 330 ppb.

CLIENT NAME:	The JOHNSON Company	LABORATORY NO.:	2-0089
ADDRESS:	5 State Street	PROJECT NO.:	78611
	Montpelier, VT 05602	DATE OF SAMPLE:	1/15/92 <i>7 mi</i>
LOCATION:	Fotohut, Rutland, VT	DATE OF ANALYSIS:	1/29/92
ATTENTION:	Mike Pottinger	DATE OF REPORT:	2/14/92

418.1 SOIL RESULTS

(Expressed as milligrams/kilogram [mg/kg] except as noted)

Location	Concentration	PRACTICAL QUANTITATION LIMIT
SS-1 0-12"	1,000	30
SS-1 2-3"	13,000	30
SS-2 0-12"	860	30
SS-2 1.2-2.2"	580	30
SS-3 0-11"	1,500	30
SS-3 11-22"	BPQL	30

EPA Method 418.1, SW-846, 3rd Ed., Nov 1986.
BPQL = Below Practical Quantitation Limits.

Respectfully submitted

SCITEST, INC.

Roderick Lamothe

Roderick J. Lamothe
Laboratory Director



ADDRESS:	5 State Street	PROJECT NO.:	78611
	Montpelier, VT 05602	DATE OF SAMPLE:	1/15/92
SITE LOCATION:	Fotohut, Rutland, VT	DATE OF ANALYSIS:	1/29/92
ATTENTION:	Mike Pottinger	DATE OF REPORT:	2/14/92

VOLATILE ORGANIC DATA FOR SOIL SAMPLES
RESULTS IN MICROGRAMS/KILOGRAM (ppb)

PARAMETER	SS 1 0-12"	PRACTICAL QUANTITATION LIMIT
Chloromethane	BPQL	80
Bromomethane	BPQL	40
Vinyl Chloride	BPQL	40
Chloroethane	BPQL	40
Methylene Chloride	BPQL	40
Acetone	BPQL	80
Trichlorofluoromethane	BPQL	40
Carbon Disulfide	BPQL	40
1,1-Dichloroethene	BPQL	40
1,1-Dichloroethane	BPQL	40
1,2-Dichloroethene (Total)	BPQL	40
Chloroform	BPQL	20
1,2-Dichloroethane	BPQL	20
Butanone (MEK)	BPQL	80
1,1,1-Trichloroethane	BPQL	20
Carbon Tetrachloride	BPQL	40
Vinyl Acetate	BPQL	80
Bromodichloromethane	BPQL	20
1,2-Dichloropropane	BPQL	20
1,3-Dichloropropane	BPQL	20
Trichloroethene	BPQL	20
Dibromochloromethane	BPQL	20
1,1,2-Trichloroethane	BPQL	20
Benzene	BPQL	20
1,3-Dichloropropane	BPQL	20
2-Chloroethylvinylether	BPQL	40
Formoform	BPQL	40
Methyl-2-Pentanone (MIBK)	BPQL	80
2-Hexanone	BPQL	80
Tetrachloroethene	423	20
1,1,2,2-Tetrachloroethane	BPQL	20
Toluene	48	20
Chlorobenzene	BPQL	20
Benzylbenzene	BPQL	20
Biphenyl	BPQL	40
m-Xylene	BPQL	40
p-Xylene	BPQL	40
1,3-Dichlorobenzene	BPQL	40
1,2-Dichlorobenzene	BPQL	40
1,4-Dichlorobenzene	BPQL	40

EPA Method 8240, SW846, 3RD ED., Nov 1986

BPQL = Below Practical Quantitation Limit.

Note: Late eluting hydrocarbons including the chemical formulas $C_{10}H_{12}$, $C_{10}H_{14}$, & $C_{10}H_{20}$.

R/L/cha

Page 1 of 4

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THE JOHNSON CO., INC.
MONTPELIER, VERMONT

CLIENT NAME:	The JOHNSON Company	LABORATORY NO.:	2-0089
ADDRESS:	5 State Street	PROJECT NO.:	78611
	Montpelier, VT 05602	DATE OF SAMPLE:	1/15/92 <i>TMT</i>
SITE LOCATION:	Fotohut, Rutland, VT	DATE OF ANALYSIS:	1/29/92
ATTENTION:	Mike Pottinger	DATE OF REPORT:	2/14/92

VOLATILE ORGANIC DATA FOR SOIL SAMPLES
RESULTS IN MICROGRAMS/KILOGRAM (ppb)

	SS 1	SS 2	SS 2	SS 3	SS 3	Spike	PRACTICAL
	2-3"	0-12"	1.1-2.2"	0-11	11-12"	SS 2	QUANTITATION
PARAMETER						0-12"	LIMIT
Chloromethane	BPQL	BPQL	BPQL	BPQL	BPQL	---	<4000
Bromomethane	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
Vinyl Chloride	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
Chloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
Methylene Chloride	BPQL	BPQL	BPQL	BPQL	BPQL	93%	<2000
Acetone	BPQL	BPQL	BPQL	BPQL	BPQL	---	<4000
Trichlorofluoromethane	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
Carbon Disulfide	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
1,1-Dichloroethene	BPQL	BPQL	BPQL	BPQL	BPQL	105%	<2000
1,1-Dichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	82%	<2000
1,2-Dichloroethene (Total)	BPQL	BPQL	BPQL	BPQL	BPQL	111%	<2000
Chloroform	BPQL	BPQL	BPQL	BPQL	BPQL	---	<1000
1,2-Dichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	86%	<1000
2-Butanone (MEK)	BPQL	BPQL	BPQL	BPQL	BPQL	---	<4000
1,1,1-Trichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	101%	<1000
Carbon Tetrachloride	BPQL	BPQL	BPQL	BPQL	BPQL	90%	<2000
Vinyl Acetate	BPQL	BPQL	BPQL	BPQL	BPQL	---	<4000
Bromodichloromethane	BPQL	BPQL	BPQL	BPQL	BPQL	---	<1000
1,2-Dichloropropane	BPQL	BPQL	BPQL	BPQL	BPQL	82%	<1000
1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	BPQL	---	<1000
Trichloroethene	BPQL	BPQL	BPQL	BPQL	BPQL	100%	<1000
Dibromochloromethane	BPQL	BPQL	BPQL	BPQL	BPQL	---	<1000
1,1,2-Trichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	81%	<1000
Benzene	BPQL	BPQL	BPQL	BPQL	BPQL	87%	<1000
1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	BPQL	---	<1000
Chloroethylvinylether	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
Bromoform	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
4-Methyl-2-Pentanone (MIBK)	BPQL	BPQL	BPQL	BPQL	BPQL	---	<4000
Hexanone	BPQL	BPQL	BPQL	BPQL	BPQL	---	<4000
1,1,2,2-Tetrachloroethane	3550	BPQL	BPQL	BPQL	BPQL	102%	<1000
1,1,2,2-Tetrachloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	61%	<1000
Toluene	1500	BPQL	BPQL	BPQL	BPQL	95%	<1000
Chlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	87%	<1000
Ethylbenzene	5160	BPQL	BPQL	BPQL	BPQL	109%	<1000
Styrene	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
m-Xylene	24700	BPQL	BPQL	BPQL	BPQL	140%	<2000
p-Xylene	27900	BPQL	BPQL	BPQL	BPQL	100%	<2000
1,3-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
1,2-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000
1,4-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	---	<2000

Note 1

Note 2

Note 3

PA Method 8240, SW 846, 3rd Ed., Nov 1986.

BPQL = Below Practical Quantitation Limits.

Note 1: Hydrocarbon peaks present includes C₉H₁₂.

Note 2: Hydrocarbon peaks present included C₉H₁₄ & C₁₀H₂₀

Note 3: Spike level was 5500 ug/kg.

[illegible]

Client/Project Name CHITENDEN BANK / FORT HUT			Project Location ROTHLAND, VT			ANALYSES THE JOHNSON CO. INC. MONTPELIER, VERMONT 12/30/90 12/30/90							
Project No. 1-6342-1 (54)			Field Logbook No.										
Sampler: (Signature) <i>Michael Kelly</i>			Chain of Custody Tape No.										
Sample No./ Identification			Date	Time	Lab Sample Number							Type of Sample	REMARKS
B1	11/29/90				1702-90	SOIL	X	X					TOP 4 inches
B2							X	X					TOP 4 inches
B3							X	X					TOP 4 inches
B4							X	X					TOP 4 inches
B5							X	X					TOP 4 inches and bottom
B6							X	X					TOP 4 inches
B7							X	X					TOP 4 inches bottom
B8							X	X					TOP 4 inches bottom
Relinquished by: (Signature) <i>Michael Kelly</i>						Date 11/29/90	Time 8 AM	Received by: (Signature) <i>Refugee</i>				Date 11/30	Time 8 AM
Relinquished by: (Signature)						Date	Time	Received by: (Signature)				Date	Time
Relinquished by: (Signature)						Date	Time	Received for Laboratory: (Signature) <i>James P. Moore</i>				Date 12/3/90	Time 10:20
Sample Disposal Method:						Disposed of by: (Signature)						Date	Time
SAMPLE COLLECTOR 5 State Street Montpelier, VT 05602 (802) 229-4600 Fax: (802) 229-5876						ANALYTICAL LABORATORY THE JOHNSON COMPANY, INC. Environmental Sciences and Engineering							

1974-3-84

WHITE - To accompany sample to the lab and returned to the Johnson Co. YELLOW - Lab copy PINK - Transporter copy ORANGE - Sampler copy

WHITE - To accompany sample to the lab and returned to the Johnson Co. YELLOW - Lab copy PINK - Transporter copy ORANGE - Sampler copy

Client/Project Name			Project Location		DECANALYSES										REMARKS
Project No.			Field Logbook No.		THE JOHNSON CO., INC. MONTPELIER, VERMONT										
Sampler: (Signature)			Chain of Custody Tape No.												
Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample	8010	8020									
OUT 1	11/29/90	-	1752-90 1752-90	SOIL	X	X									
OUT 2	"			"	X	X									
OUT 3	"			"	X	X									
OUT 4	"			"	X	X									
OUT 5	"			"	X	X									
OUT 6	"			"	X	X									
None here	"			"	X	X									
TANIC	"			"	X	X									
Relinquished by: (Signature)				Date	Time	Received by: (Signature)						Date	Time		
Michael Petty				11/30	8am	Reynolds						11/30	8am		
Relinquished by: (Signature)				Date	Time	Received by: (Signature)						Date	Time		
Relinquished by: (Signature)				Date	Time	Received for Laboratory: (Signature)						Date	Time		
						James P. Mours						12/3/91	10:00		
Sample Disposal Method:				Disposed of by: (Signature)										Date	Time
SAMPLE COLLECTOR				ANALYTICAL LABORATORY											
5 State Street Montpelier, VT 05602 (802) 229-4600 Fax: (802) 229-5876				THE JOHNSON COMPANY, INC. Environmental Sciences and Engineering											

CHAIN OF CUSTODY RECORD

Client/Project Name Chittenden Bank - Foto Hut			Project Location Rutland			<div style="text-align: center;">ANALYSES</div> <div style="text-align: center; font-size: 2em;">8240 418.1</div>								
Project No. 1-0342-1			Field Logbook No. _____											
Sampler: (Signature) Tammy Jacques			Chain of Custody Tape No. JCO-713											
Sample No./ Identification			Date	Time	Lab Sample Number							Type of Sample	REMARKS	
SS-1 0-12"			1-15-92	12:15 pm	2-0089-01	Soil	X	X	<div style="text-align: center;">RECEIVED</div> <div style="text-align: center;">JAN 21 1992</div> <div style="text-align: center;">THE JOHNSON CO., INC.</div> <div style="text-align: center;">ANALYTICAL LABORATORY</div>					
SS-1 2-3'			1-15-92	12:15 pm	02	Soil	X	X						
SS-2 0-12"			1-15-92	2:00 pm	03	Soil	X	X						
SS-2 12-22"			1-15-92	2:00 pm	04	Soil	X	X						
SS-3 0-11"			1-15-92	3:30 pm	05	Soil	X	X						
SS-3 11"-22"			1-15-92	3:30 pm	06	Soil	X	X						
Groundwater			1-15-92	11:00 am	07	Water	X							
Relinquished by: (Signature) Tammy Jacques						Date 1-17-92	Time 12:00	Received by: (Signature)			Date	Time		
Relinquished by: (Signature)						Date	Time	Received by: (Signature)			Date	Time		
Relinquished by: (Signature)						Date	Time	Received for Laboratory: (Signature) Jim Moore			Date 1/17/92	Time 2:05		
Sample Disposal Method:						Disposed of by: (Signature)						Date	Time	
SAMPLE COLLECTOR						ANALYTICAL LABORATORY								
5 State Street Montpelier, VT 05602 (802) 229-4600 Fax: (802) 229-5876						THE JOHNSON COMPANY, INC. Environmental Sciences and Engineering								
						Scitest								

THE JOHNSON COMPANY, II
Environmental Sciences and Engineering
5 State Street, Montpelier Vermont 05602
Phone: (802)229-4600
FAX: (802)229-5876

FACSIMILE COVER PAGE

May 12, 1992 11.58

TO: Mr. Bill M^cCambridge
COMPANY: AMREC®
FAX #: (508) 248-7701 TELEPHONE #: (508) 248-3777
JCO #: 1-0342-1 PHONE CODE: 597
FROM: Hugo Martinez Cazon

NUMBER OF PAGES, INCLUDING COVER PAGE: 14

Please call Harriet if there are any problems with this transmission.

MESSAGE

Dear Bill,

Here's an explanation of the "Station ID" remarks on the labsheets. X1 represents a composite sample from the roll-off containing soils from Tank 1. This is the sample used by TWM, Inc. to characterize the waste. X2 represents a composite sample collected from the roll-off containing soils that surrounded tanks 2 and 3. X4 represents the contents of tanks 2 and 3. X4 in the labsheets seem to be the sample identified as X3 in the Chain of Custody form, attached.

Michael has not signed the enclosed copy of Attachment 1, he thinks it more appropriate that the Generator sign this form. I am wondering if this unsigned form is enough, along with the analytical results, to initiate the MA-DEP approval process. Please let me know if I can be of further assistance or call Mr. Michael Pottinger, Project Manager at (802) 229-4600.

Sincerely,
THE JOHNSON COMPANY, INC.

By: 
Hugo Martinez Cazon
Project Engineer

Reviewed by: hmc
J:\PROJECTS\1-0342-1\AMREC1\FAX May 12, 1992 12.20 mhp



AMERICAN
RECLAMATION
CORPORATION

ATTACHMENT 1

GENERATOR PREQUALIFICATION INFORMATION
PURSUANT TO DEP POLICY #WSC-400-89

INFORMATION ON THE RELEASE:

GENERATOR NAME: THE CHITTENDEN BANKADDRESS: 2 Burlington Sq. #101Burlington, VT 05402SITE OF RELEASE: 77A WOODSTOCK AVE RUTLAND, VTMATERIAL RELEASED: Underlain: Lab characterized as Kerosene + fuel oilBRIEF DESCRIPTION OF RELEASE: Very old tanks discovered during investigation of property. Tanks out of service for at least 20 years.MATERIAL STOCKPILED? YES X NO ESTIMATED VOLUME OF CONTAMINATED SOIL: ~20 yardsCONTACT PERSON: Michael Pottinger TELEPHONE: (802) 229-4600

BILLING AND DOCUMENTATION INFORMATION

Indicate to whom billing and supporting documentation should be sent:

BillingDocumentationGene TwileMichael PottingerThe Chittenden BankThe Johnson Company2 Burlington Sq.5 State StBurlington, VT 05402Montpelier, VT 05602

CERTIFICATION OF RELEASE OF VIRGIN PETROLEUM PRODUCT

I certify that the ~~contaminated~~ ^{analytical results} petroleum-containing soil, which is being sent to AmRec for recycling, originated from a release of virgin petroleum product, based on the analytical results. pp

Signature: _____

Typed/Printed Name: _____

Title: _____

Date: _____

analytical

 Environmental
Laboratory Inc.

 115 Commerce Way
Portsmouth, NH 03801
(603) 436-5111

Mr. Todd Johnson

Total Waste Management

142 River Road

Newington, NH 03801

CLIENT SAMPLE ID

Client Project: Chittenden Bank, Rutland, VT

Project Number: 1554 KS

Station ID: X1 - Tank 1

April 2, 1992

SAMPLE DATA

Lab #1	2556102
Matrix:	Soil
Percent Solid:	78
Dilution Factor:	1
Collection Date:	3/17/92
Lab Receipt Date:	3/17/92
Extraction Date:	3/18/92
Analysis Date:	3/23/92

ANALYTICAL RESULTS SEMI-VOLATILES

PAGE TWO

COMPOUND	Detection Limit: $\mu\text{g/kg}$	Result: $\mu\text{g/kg}$	COMPOUND	Detection Limit: $\mu\text{g/kg}$	Result: $\mu\text{g/kg}$
BASE NEUTRAL COMPOUNDS:					
Acenaphthene	300	ND	N-Nitrosodl-n-propylamine	300	ND
Acenaphthylene	300	ND	N-Nitrosodiphenylamine	300	ND
Anthracene	300	ND	Pyridine	300	ND
Benzo (a) anthracene	300	<300	2-Methylnaphthalene	300	1064
Benzo (a) pyrene	300	<300	2-Chloronaphthalene	300	ND
Benzo (b) fluoranthene	300	<300	Naphthalene	300	3321
Benzo (g,h,i) perylene	300	ND	Biphenyl	300	ND
Benzo (k) fluoranthene	300	<300	Benzo (e) pyrene	300	ND
Chrysene	300	343	Perylene	300	ND
Dibenzo (a,h) anthracene	300	ND	Fluoranthene	300	335
Fluoranthene	300	<300	Dibenzofuran	300	ND
Fluorene	300	ND	Aniline	300	ND
Indeno (1,2,3-cd) pyrene	300	ND	4-Chloroaniline	300	ND
Pyrene	300	333	2-Nitroaniline	300	ND
Hexachloroethane	300	ND	3-Nitroaniline	300	ND
Isophorone	300	ND	4-Nitroaniline	300	ND
N-Nitrosodimethylamine	300	ND			
Base Neutral Surrogate Standard Recovery					
ds-Nitrobenzene	104 %	2-Fluorobiphenyl	94 %	d14-p-Torphenyl	56 %
ND= None Detected <=Less than >=Greater than PR= Present but not calibrated for					

METHODOLOGY: Water sample analysis was conducted according to "40 CFR part 136, EPA Method 625," and other matrices were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8270."

COMMENTS: Detection limit increased due to dilution factor. Results are expressed on a dry weight basis.

Authorized signature

 Kenneth W. Rogers
Laboratory Director

analytical

 environmental
laboratory inc.

 195 Commerce Way
Patterson, CA 95765
916-424-9111

Mr. Todd Johnson

Total Waste Management

142 River Road

Newington,

NH 03801

CLIENT SAMPLE ID

Client Project: Chittenden Bank, Rutland, VT

Project Number: 1554 KS

Station ID: X1

April 2, 1992

SAMPLE DATA
 Lab #: 28661-02
 Matrix: Soil
 Percent Solid: 78
 Dilution Factor: 1
 Collection Date: 3/17/92
 Lab Receipt Date: 3/17/92
 Extraction Date: 3/19/92
 Analysis Date: 3/25/92
ANALYTICAL RESULTSSEMI-VOLATILES

PAGE ONE

COMPOUND	Detection Limit: µg/kg	Result: µg/kg	COMPOUND	Detection Limit: µg/kg	Result: µg/kg
<u>ACID COMPOUNDS:</u>					
2-Chlorophenol	300	ND	Pentachlorophenol	1000	ND
4-Chloro-3-methylphenol	1000	ND	Phenol	300	ND
2,4-Dichlorophenol	300	ND	2,4,5-Trichlorophenol	300	ND
2,4-Dimethylphenol	300	ND	2,4,6-Trichlorophenol	300	ND
2,4-Dinitrophenol	300	ND	Benzoic Acid	300	ND
4,6-Dinitro-2-methylphenol	300	ND	m-Cresol	300	ND
2-Nitrophenol	300	ND	o,p-Cresol	300	ND
2,6-Dichlorophenol	300	ND	Benzyl alcohol	300	ND
4-Nitrophenol	300	ND	2,3,4,6-Tetrachlorophenol	300	ND

Acid Surrogate Standard Recovery

2,4,6-Tribromophenol	53 %	2-Fluorophenol	72 %	o,p-Cresol	84 %
----------------------	------	----------------	------	------------	------

BASE NEUTRAL COMPOUNDS:

1,2-Dichlorobenzene	300	ND	Hexachlorobenzene	300	ND
1,3-Dichlorobenzene	300	ND	Benzidine	2000	ND
1,4-Dichlorobenzene	300	ND	3,3'-Dichlorobenzidine	2000	ND
2,4-Dinitrotoluene	300	ND	Azobenzene	300	ND
2,6-Dinitrotoluene	300	ND	Bis (2-chloroethoxy) methane	300	ND
Nitrobenzene	300	ND	Bis (2-chloroethyl) ether	300	ND
Hexachlorobutadiene	300	ND	Bis (2-chloroisopropyl) ether	300	ND
Dimethyl phthalate	300	ND	4-Bromophenyl phenyl ether	300	ND
Di-n-butyl phthalate	300	ND	Butyl benzyl phthalate	300	ND
Di-n-octyl phthalate	300	ND	4-Chlorophenyl phenyl ether	300	ND
Bis (2-ethylhexyl) phthalate	300	ND	Diethyl phthalate	300	ND
1,2,4-Trichlorobenzene	300	ND	Hexachlorocyclopentadiene	300	ND

ND= None Detected

<= Less than

>= Greater than

PR= Present but not calibrated for

METHODOLOGY: Water sample analysis was conducted according to "40 CFR part 136, EPA Method 625," and other methods were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8270."

Authorized signature

 Kenneth N. Teague
 Laboratory Director

SENT DI

analytica environmental
laboratory inc.145 Commercial Way
Portsmouth, New Hampshire 03801
603-436-1111

April 2, 1992

Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801

Client Project: Chittendon Bank, Rutland, VT

Project Number: 1554 KS
Station ID: X1Lab #: 28661-02
Matrix: Soil
Percent Solid: 78
Dilution Factor: 1
Collection Date: 3/17/92
Lab Receipt Date: 3/17/92
Extraction Date: 3/19/92
Analysis Date: 3/25/92

TOTAL PETROLEUM HYDROCARBON ANALYSIS

Sample	Result	Units	Detection Limit
28661-02	130	mg/kg	1

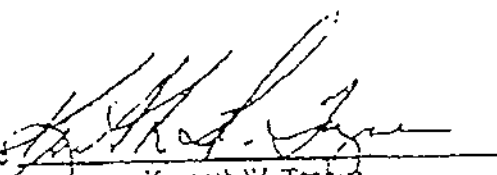
ND denotes none detected.

Methodology: Water samples were prepared by Separatory Funnel Liquid/Liquid Extraction, EPA Method 3510; other matrices were prepared by Soxhlet Extraction, EPA Method 3540. All matrices were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8100."

Comments:

Results are expressed on a dry weight basis. Chromatographic fingerprint is indicative of 6 mg/ml #2 fuel oil and 224 mg/kg kerosene.

Authorized signature

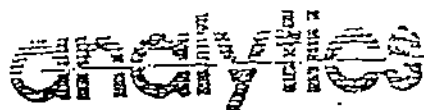

Kenneth W. Torgue
Laboratory Director

SENT BY:

4- 3-92 10:22AM

603 436 0154-603 431 3806

17 3


environmental
laboratory inc.193 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111

April 2, 1992

Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801

CLIENT SAMPLE ID

Client Project: Chittenden Bank, Rutland, VT
Project Number: 1554 KS
Station ID: X1

SAMPLE DATA

Lab #: 28661-01
Matrix: Soil
Percent Solid: 78
Dilution Factor: 100
Collection Date: 3/17/92
Lab Receipt Date: 3/17/92
Analysis Date: 3/25/92

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Detection Limit	Result	COMPOUND	Detection Limit	Result
	µg/kg	µg/kg		µg/kg	µg/kg
Vinyl chloride	500	ND	Ethylbenzene	500	<500
1,1-Dichloroethene	500	ND	m-Xylene	500	1734
1,2-Dichloroethene (cis or trans)	500	ND	o&p-Xylene	500	2090
Trichloroethene	500	ND	Methyl t-butyl ether	500	ND
Tetrachloroethene	500	<500	m-Dichlorobenzene	500	ND
Chloromethane	500	ND	o-Dichlorobenzene	500	ND
Methylene chloride	500	ND	p-Dichlorobenzene	500	ND
Chloroform	500	ND	1,2-Dichloropropane	500	ND
Carbon tetrachloride	500	ND	cis-1,3-Dichloropropane	500	ND
Bromodichloromethane	500	ND	trans-1,3-Dichloropropane	500	ND
Dibromochloromethane	500	ND	2-Chloroethylvinyl ether	1500	ND
Bromomethane	500	ND	Acetone	1500	ND
Chloroethane	500	ND	Methyl ethyl ketone	1000	ND
1,1-Dichloroethane	500	ND	Methyl isobutyl ketone	1000	ND
1,2-Dichloroethane	500	ND	Dichlorodifluoromethane	500	ND
1,1,1-Trichloroethane	500	ND	Trichlorofluoromethane	500	ND
1,1,2-Trichloroethane	500	ND	Tetrahydrofuran	1500	ND
1,1,2,2-Tetrachloroethane	500	ND	Styrene	500	ND
Chlorobenzene	500	ND	Carbon disulfide	500	ND
Bromoform	500	ND	Vinyl acetate	1500	ND
Benzene	500	ND	2-Hexanone	1000	ND
Toluene	500	ND			

Surrogate Standard Recovery

d4-1,2-Dichloroethane *% C8-Toluene *% Bromofluorobenzene *%

ND=Not Detected <=Less than >=Greater than PR=Present but not calibrated for

METHODOLOGY: Water sample analysis was conducted according to "40 CFR Part 135, EPA Method 624" and other matrices were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8240."

COMMENTS: Detection limits increased due to dilution factor. Results are expressed on a dry weight basis. *The surrogates were diluted out.

24/03/1992

11:2

TOTAL WASTE MANAGEMENT

603

1 3925

P.25

SENT BY:

4- 3-92 110:24AM :

603 435 0154-603 431 3805

6

analyses

environmental
laboratory inc.101 Commerce Way
Portsmouth, New Hampshire 03801
603-435-5111

Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801

April 2, 1992

Client Project: Chittendon Bank, Rutland, VT
Project Number: 1554 KS
Station ID: X1

Lab #: 28661-02
Matrix: Soil
Collection Date: 3/17/92
Lab Receipt Date: 3/17/92
Analysis Date: 3/20/92

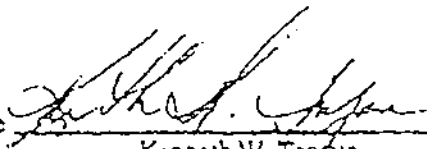
FLASH POINT ANALYSIS

Sample	Result
28661-02	>160 degrees Fahrenheit

Methodology: Sample analysis was conducted according to "Test Methods for Evaluating Solid Waste, EPA SW-846, Method 1010."

Comments:

Authorized signature


Kenneth W. Tossas
Laboratory Director

GradyGRADY
100010107/NO.165 Centre Street
Pittsford, New York 14534
607-336-5111

April 2, 1992

CLIENT SAMPLE IDSAMPLE DATA

Client Project: Chittendon Bank, Rutland, VT

Lab #: 28651-02

Project Number: 1554 KS

Matrix: Soil

Station ID: X1

TCLP
Extraction Date: 3/24/92ANALYTICAL RESULTSTCLPSEMI-VOLATILE EXTRACTION DATA:Preliminary sample evaluation:

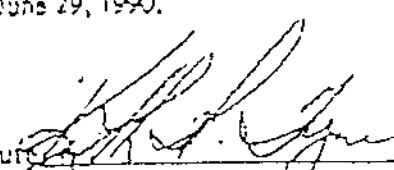
The initial pH of the sample was greater than 5.00. After the appropriate treatment with HCL and heat, the pH was remeasured. If the pH of the sample was less than 5.00, then extraction fluid #1 was used. Extraction fluid #1 is 5.7 ml glacial acetic acid, 63.4 ml of 1N NaOH, diluted to one liter with deionized water resulting in a pH of 4.93 ± 0.05 . If the pH was greater than 5.00 after treatment, extraction fluid #2 was used. Extraction fluid #2 is 5.7 ml glacial acetic acid diluted to one liter with deionized water, resulting in a pH of 2.88 ± 0.05 .

EXTRACTION PROCEDURE DATA:

Initial pH	7.35
pH After Treatment	1.15
Final pH	5.16
TCLP Solids	100 %
Total Weight Extracted	100 grams
Total Extraction Time	18 hours

METHODOLOGY: EPA Federal Register Vol. 55, No. 126; June 29, 1990.

Authorized signature

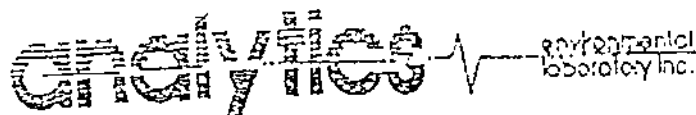

Kenneth W. Tregno
Laboratory Director

SENT BY:

4- 3-92 110:24AM :

603 436 0154-603 431 3808

5



196 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111

April 2, 1992

Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801

CLIENT SAMPLE ID

Client Project: Chittendon Bank, Rutland, VT
Project Number: 1554 KS
Station ID: X1

SAMPLE DATA

Lab #1 28661-02
Matrix: Soil
Percent Solids: 78
Dilution Factor: 10
Collection Date: 3/17/92
Lab Receipt Date: 3/17/92
Extraction Date: 3/20/92
Analysis Date: 3/28/92

ANALYTICAL RESULTS PESTICIDES & PCB'S

COMPOUND	Detection Limit µg/kg	Result µg/kg	COMPOUND	Detection Limit µg/kg	Result µg/kg
Aldrin	100	ND	Endrin Aldehyde	100	ND
α-BHC	100	ND	Heptachlor	100	ND
β-BHC	100	ND	Heptachlor Epoxides	100	ND
γ-BHC	100	ND	Toxaphene	100	ND
γ-BHC (Lindane)	100	ND	Methoxychlor	100	ND
Chlordane	100	ND	PCB-1016	100	ND
4,4'-DDD	100	ND	PCB-1221	100	ND
4,4'-DDE	100	ND	PCB-1232	100	ND
4,4'-DDT	100	ND	PCB-1242	100	ND
Dieldrin	100	ND	PCB-1248	100	ND
Endosulfen I	100	ND	PCB-1254	100	ND
Endosulfen II	100	ND	PCB-1260	100	ND
Endosulfen Sulfate	100	ND	PCB-1262	100	ND
Endrin	100	ND			

ND= None Detected <= Less than >= Greater than PR= Present but not calibrated for

METHODOLOGY: Water sample analysis was conducted according to "40 CFR Part 136, EPA Method 608" and all other matrices were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8060."

COMMENTS: Detection limits increased due to dilution factor. Results are expressed on a dry weight basis.

Authorized signature

Kenneth W. Fergus

24/03/1992

11:19

TOTAL WASTE MANAGEMENT

603 401 3825

P.23

SENT BY:

4- 3-92 110:23AM

603 406 0154-603 401 3803

14 4

analyticalenvironmental
laboratory inc.195 Commerce Way
Falmouth, New Hampshire 05440
603-435-5111

April 2, 1992

Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801SAMPLE DATA

Lab #:	28661-02
Matrix:	Soil
Percent Solids:	78
Dilution Factor:	1
Collection Date:	3/17/92
Lab Receipt Date:	3/17/92
Extraction Date:	3/22/92
Analysis Date:	4/1/92

CLIENT SAMPLE IDClient Project: Chittenden Bank, Rutland, VT
Project Number: 1554 KS
Station ID: X1

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Detection Limit µg/kg	Result µg/kg
Dichloroprop	100	ND
Dalapon	100	ND
2,4-D	100	ND
2,4,5-TP	100	ND
2,4,5-T	100	ND
Dicamba	100	ND
MCPA	100	ND
MCPP	100	ND
2,4-DB	100	ND

ND=None Detected <=Less than >=Greater than PR=Present but not calibrated for

METHODOLOGY: Water sample analysis was conducted according to "40 CFR Part 136, EPA Method 615," and other matrices were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8150."

COMMENTS: Detection limits increased due to dilution factor. Results are expressed on a dry weight basis.

analytica

 analytical
laboratory inc.

 100 Commercial Way
Portsmouth, New Hampshire 03801
603-430-1111

April 3, 1992

 Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801

CLIENT SAMPLE ID

 Client Project: Chittenden Bank, Rutland, VT
Project Number: 1554 K3
Station ID: X-4 Tank sludge drums *Tank 2+3 contents*

SAMPLE DATA

 Lab #: 28551-04
Matrix: Soil
Percent Solids: 43
Dilution Factor: 25200
Collection Date: 3/17/92
Lab Receipt Date: 3/17/92
Analysis Date: 4/2/92

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Detection Limit: $\mu\text{g}/\text{kg}$	Result: $\mu\text{g}/\text{kg}$	COMPOUND	Detection Limit: $\mu\text{g}/\text{kg}$	Result: $\mu\text{g}/\text{kg}$
Vinyl chloride	126000	ND	Ethylbenzene	126000	ND
1,1-Dichloroethane	126000	ND	o-Xylene	126000	ND
1,2-Dichloroethane (cis or trans)	126000	ND	m&p-Xylene	126000	<126000
Trichloroethane	126000	ND	Methyl t-butyl ether	126000	ND
Tetrachloroethane	126000	ND	m-Dichlorobenzene	126000	ND
Chloromethane	126000	ND	o-Dichlorobenzene	126000	ND
Methylene chloride	126000	ND	p-Dichlorobenzene	126000	ND
Chloroform	126000	ND	1,2-Dichloropropane	126000	ND
Carbon tetrachloride	126000	ND	cis-1,3-Dichloropropane	126000	ND
Bromodichloromethane	126000	ND	trans-1,3-Dichloropropane	126000	ND
Dibromochloromethane	126000	ND	2-Chloroethylvinyl ether	378000	ND
Bromomethane	126000	ND	Acetone	378000	ND
Chloroethane	126000	ND	Methyl ethyl ketone	252000	ND
1,1-Dichloroethane	126000	ND	Methyl isobutyl ketone	252000	ND
1,2-Dichloroethane	126000	ND	Dichlorodifluoromethane	126000	ND
1,1,1-Trichloroethane	126000	ND	Trichlorofluoromethane	126000	ND
1,1,2-Trichloroethane	126000	ND	Tetrahydrofuran	378000	ND
1,1,2,2-Tetrachloroethane	126000	ND	Styrene	126000	ND
Chlorobenzene	126000	ND	Carbon disulfide	126000	ND
Bromoform	126000	ND	Vinyl acetate	378000	ND
Benzene	126000	ND	2-Hexanone	252000	ND
Toluene	126000	ND			

Surrogate Standard Recovery

64-1,2-Dichloroethane	%	68-Toluene	%	Bromofluorobenzene	%
-----------------------	---	------------	---	--------------------	---

ND=None Detected

<=Less than

>=Greater than

PR=Present but not calibrated for

METHODOLOGY: Water sample analysis was conducted according to "40 CFR Part 136, EPA Method 624" and other matrices were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8240."

COMMENTS: Detection limits increased due to dilution factor. Results are expressed on a dry weight basis. *The surrogates were diluted out. Dilution necessary due to excessive foaming. Dilution necessary due to a non-target compound.

Authorized signature

 Kenneth W. Touss
Laboratory Director

04/03/1992

11:22

TOTAL WASTE MANAGEMENT

603 451 3826

P.23

4- 3-92 11:02 AM

000 400 0101 000

SENT BY:

analytical environmental
laboratory inc.

115 Commercial Way
Plymouth, New Hampshire 03251
603-436-8111

Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801

April 2, 1992

SAMPLE DATA

Lab #: 28651-03
Matrix: Soil
Percent Solid: 82
Dilution Factor: 10
Collection Date: 3/17/92
Lab Receipt Date: 3/17/92
Extraction Date: 3/21/92
Analysis Date: 3/28/92

CLIENT SAMPLE ID

Client Project: Chittenden Bank, Rutland, VT
Project Number: 1554 KS
Station ID: X2 = second roll 96

ANALYTICAL RESULTS POLYCHLORINATED BIPHENYLS

COMPOUND	Detection Limit µg/kg	Result µg/kg
PCB 1016	100	ND
PCB 1221	100	ND
PCB 1232	100	ND
PCB 1242	100	ND
PCB 1248	100	ND
PCB 1254	100	ND
PCB 1260	100	ND
PCB 1262	100	ND
ND=None Detected <=Less than >=Greater than PR=Present but not calibrated for		

METHODOLOGY: Water sample analysis was conducted according to "40 CFR Part 136, EPA Method 608" and other matrices were analyzed according to "Test Methods for Evaluating Solid Waste, SW-846, Method 8080."

COMMENTS: Detection limits increased due to dilution factor. Results are expressed on a dry weight basis.

Authorized signature

Kenneth W. Teague
Kenneth W. Teague
Laboratory Director

SENT BY:

4- 3-92 110:27AM :

603 406 0154-603 431 3800

#10

analyticalenvironmental
laboratory inc.195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111

April 2, 1992

Mr. Todd Johnson
Total Waste Management
142 River Road
Newington, NH 03801CLIENT SAMPLE IDClient Project: Chittenden Bank, Rutland, VT
Project Number: 1554 KS
Station ID: X2SAMPLE DATALab #: 28661-03
Matrix: Soil
Percent Solids: 82
Dilution Factor: 100
Collection Date: 3/17/92
Lab Receipt Date: 3/17/92
Analysis Date: 3/20/92ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Detection Limit	Result $\mu\text{g/kg}$	COMPOUND	Detection Limit	Result $\mu\text{g/kg}$
Vinyl chloride	500	ND	Ethylbenzene	500	7831
1,1-Dichloroethene	500	ND	m-Xylene	500	39365
1,2-Dichloroethene (cis or trans)	500	ND	o&p-Xylene	500	52513
Trichloroethene	500	ND	Methyl t-butyl ether	500	ND
Tetrachloroethene	500	ND	m-Dichlorobenzene	500	ND
Chloromethane	500	ND	o-Dichlorobenzene	500	ND
Methylene chloride	500	ND	p-Dichlorobenzene	500	ND
Chloroform	500	ND	1,2-Dichloropropane	500	ND
Carbon tetrachloride	500	ND	cis-1,3-Dichloropropane	500	ND
Bromodichloromethane	500	ND	trans-1,3-Dichloropropane	500	ND
Dibromochloromethane	500	ND	2-Chloroethylvinyl ether	1500	ND
Bromomethane	500	ND	Acetone	1500	ND
Chloroethane	500	ND	Methyl ethyl ketone	1000	ND
1,1-Dichloroethane	500	ND	Methyl isobutyl ketone	1000	ND
1,2-Dichloroethane	500	ND	Dichlorodifluoromethane	500	ND
1,1,1-Trichloroethane	500	ND	Trichlorofluoromethane	500	ND
1,1,2-Trichloroethane	500	ND	Tetrahydrofuran	1500	ND
1,1,2,2-Tetrachloroethane	500	ND	Styrene	500	ND
Chlorobenzene	500	ND	Carbon disulfide	500	ND
Bromoform	500	ND	Vinyl acetate	1500	ND
Benzene	500	ND	2-Hexanone	1000	ND
Toluene	500	ND			

Surrogate Standard Recovery

o&p-1,2-Dichloroethane	%	o&p-Toluene	%	Bromofluorobenzene	%
------------------------	---	-------------	---	--------------------	---

ND=None Detected

<=Less than

>=Greater than

PR=Present but not calibrated for

METHODOLOGY: Water sample analysis was conducted according to 40 CFR Part 136, EPA Method 824 and other matrices were analyzed according to Test Methods for Evaluating Solid Waste, SW-845 Method 8240.

COMMENTS: Detection limits increased due to dilution factor. Results are expressed on a dry weight basis. *The surrogates were diluted out.

LABORATORY:

CLIENT:

Analytical Environmental Laboratory
P.O. Box 433, 175 Commerce Way
Portsmouth, NH 03801
(603) 436-5111

Total Waste Management Corp.
142 River Rd.
Newington, NH 03801
(603) 431-2420 Fax (603) 431-3806

OBJECT		PROJECT NAME		Matrix: 1=Water, 2=Soil 3=Oil, 4=Other	Preservation: 1=Ice 2=HNO ₃ , 3=Other	Number of containers.	MTS Testing	EPA 8010 Soil, (Rebuttal) Halocarbons	Modified 8020/602 BTEX, (Gas Tanks) TPH, Gasoline Standard	EPA 8240 Soil/624 Water, VOCs per RI 5/15/92	8020 Soil/602 water (Oil Tanks) BTEX & MTBE	TPH (High Resolution) (Oil Tanks) Fuel Oil Standard, Type of Fuel	Sample Container Requirements				
1554 KS		CHITTENDEN BANK BUTLAND, VT											Test	Quantity	Type	Sample Type	
AMPLER	K. SCHMIT													8010	1	2 oz. jar	soil/oil
														Mod. 8020	1	2 oz. jar	soil/oil
														Mod 602	2	Vials	water
														8240	1	2 oz. jar	soil/oil
														624	2	vials	water
														8020	1	2 oz. jar	soil/oil
														602	2	Vials	water
														TPH High Res.	1	4 oz. jar	soil/oil
														TPH High Res.	1	1/2 oz. bottle	water
														MTS Samples	2	8 oz. jar	soil
															1	2 oz. jar	soil
													* Vials must be used. Containers larger than 2 oz. may be used. Fill all completely. Clean dirt off threads before replacing lid.				
ACTION NUMBER	DATE	TIME	STATION LOCATION	Analytical Sample#									REMARKS				
1	3/17/92		ROLL OFF #1	28661-01 28661-02	2	3	X						REMARKS				
2	3/17/92		ROLL OFF #2	28661-03	2	1				X			REMARKS				
3	3/17/92		TANK SLUDGE DRUMS	28661-04	2	1				X			REMARKS X3 Sample mixed w/ headspace (00)				
													REMARKS				
													REMARKS				
													REMARKS				
RELINQUISHED BY		Date	Time	RECEIVED BY		RELINQUISHED BY		Date	Time	RECEIVED BY							
K. SCHMIT		3/17/92		<i>[Signature]</i>		<i>[Signature]</i>		3/17/92									
RELINQUISHED BY		Date	Time	RECEIVED BY		RELINQUISHED BY		Date	Time	RECEIVED BY							
RECEIVED FOR LABORATORY						TURNAROUND REQUEST											
Standard						P.O. Number: 1554 KS											

04/03/1992 11:11

TOTAL WASTE MANAGEMENT

603

1 3805

P.01

LABORATORY REPORT

CLIENT NAME: Johnson Co.
 SITE LOCATION: Chittenden Bank/Photobut
 LABORATORY NO: 1702-90
 PROJECT NO: 78611
 ATTENTION: Mike Pottlinger

DATE OF SAMPLE: 11/29/90
 DATE OF RECEIPT: 12/3/90
 DATE OF ANALYSIS: 12/4/90
 DATE OF REPORT: 1/16/91

PARAMETER	B - 5					TOP	Bottom
	B - 1	B - 2	B - 3	B - 4			
Chloromethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Bromoform	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Bromomethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Dibromochloromethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Vinyl Chloride	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
2-Chloroethylvinyl Ether	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Chloroethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Methylene Chloride	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Trichloroethylene	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Trichlorofluoromethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
1,1-Dichloroethene	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
1,1-Dichloroethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
c or t-1,2-Dichloroethylene	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Chloroform	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
1,2-Dichloroethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
1,1,1-Trichloroethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Carbon Tetrachloride	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Bromodichloromethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
1,2-Dichloropropane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
t-1,3-Dichloropropane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
c-1,3-Dichloropropane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
1,1,2,2-Tetrachloroethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
1,1,2-Trichloroethane	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Tetrachloroethylene	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Benzene	BPQL	BPQL	BPQL	BPQL		BPQL	BPQL
Toluene	4	5	112	BPQL	10	2073	
Ethylbenzene	BPQL	BPQL	BPQL	BPQL	11	1590	
Chlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,4-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,3-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,2-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Xylenes	80	26	110	BPQL	61	2410	
Total Aromatics as Xylene	1518	296	3335	BPQL	436	115000	
QL Raised by Factor of:	2.5	1.9	1.8	3.1	2.1	691	
% Solids	80.6%	78.1%	81.5%	81.7%	84.3%	75.5%	
	Note1	Note1	Note1		Note1	Note1	

- EPA Method 8010 & 8020; All results reported as ug/l or ppb as dry weight.
- BPQL = Below Practical Quantitation Limit.
- 5 ppb for Bromoform, 2-Chloroethylvinyl Ether, & Methylene Chloride
- 1 ppb for All other parameters, 10 ppb for Total Aromatics.
- Note 1: Many unknown late eluting Aromatic or Alkene peaks found.

RECEIVED

JAN 22 1991

Respectfully Submitted,
 SCITEST, INC.

Roderick J. Lamothe
 Laboratory Director

LABORATORY REPORT

CLIENT NAME: Johnson Co.
 SITE LOCATION: Chittenden Bank/Fotobut
 LABORATORY NO: 1702-90
 PROJECT NO: 78611
 ATTENTION: Mike Pottinger

DATE OF SAMPLE: 11/29/90
 DATE OF RECEIPT: 12/3/90
 DATE OF ANALYSIS: 12/5/90
 DATE OF REPORT: 1/16/91

PARAMETER	B - 7		B - 8		Near Hol
	B - 6	TOP BOTTOM	TOP BOTTOM	BOTTOM	
Chloromethane	BPQL	BPQL	BPQL	BPQL	BPQL
-Bromoform	BPQL	BPQL	BPQL	BPQL	BPQL
Bromomethane	BPQL	BPQL	BPQL	BPQL	BPQL
Dibromochloromethane	BPQL	BPQL	BPQL	BPQL	BPQL
-Vinyl Chloride	BPQL	BPQL	BPQL	BPQL	BPQL
2-Chloroethylvinyl Ether	BPQL	BPQL	BPQL	BPQL	BPQL
Chloroethane	BPQL	BPQL	BPQL	BPQL	BPQL
Methylene Chloride	BPQL	BPQL	BPQL	BPQL	BPQL
-Trichloroethylene	BPQL	BPQL	BPQL	BPQL	BPQL
Trichlorofluoromethane	BPQL	BPQL	BPQL	BPQL	BPQL
1,1-Dichloroethene	BPQL	BPQL	BPQL	BPQL	BPQL
-1,1-Dichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL
c or t-1,2-Dichloroethylene	BPQL	BPQL	BPQL	BPQL	BPQL
Chloroform	BPQL	BPQL	BPQL	BPQL	BPQL
-1,2-Dichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL
1,1,1-Trichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL
Carbon Tetrachloride	BPQL	BPQL	BPQL	BPQL	BPQL
Bromodichloromethane	BPQL	BPQL	BPQL	BPQL	BPQL
-1,2-Dichloropropane	BPQL	BPQL	BPQL	BPQL	BPQL
t-1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	BPQL
c-1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	BPQL
-1,1,2,2-Tetrachloroethane	BPQL	BPQL	BPQL	BPQL	BPQL
1,1,2-Trichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL
Tetrachloroethylene	BPQL	BPQL	BPQL	BPQL	BPQL
-Benzene	BPQL	BPQL	BPQL	BPQL	BPQL
Toluene	BPQL	12300	3170	211	2120
Ethylbenzene	BPQL	1400	2500	BPQL	3850
Chlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL
-1,4-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL
1,3-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL
1,2-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL
-Xylenes	BPQL	31900	54100	BPQL	15700
Total Aromatics as Xylene	BPQL	351000	359000	3140	420000
QL Raised by Factor of:	2.7	139	265	178	2.0
- % Solids	83.2%	74.2%	79.4%	89.3%	89.2%
		Note1	Note1	Note1	Note1

EPA Method 8010 & 8020; All results reported as ug/l or ppb as dry weight.

BPQL = Below Practical Quantitation Limit.

5 ppb for Bromoform, 2-Chloroethylvinyl Ether, & Methylene Chloride

1 ppb for All other parameters, 10 ppb for Total Aromatics.

- Note 1: Many unknown late eluting Aromatic or Alkene peaks found.

Respectfully Submitted,
 SCITEST, INC.

[Signature]
 Roderick J. Lamothe
 Laboratory Director

LABORATORY REPORT

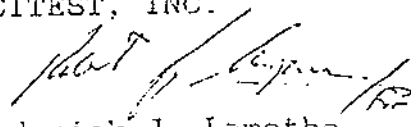
CLIENT NAME: Johnson Co.
 SITE LOCATION: Chittenden Bank/Fotobut
 LABORATORY NO: 1702-90
 PROJECT NO: 78611
 ATTENTION: Mike Pottinger

DATE OF SAMPLE: 11/29/90
 DATE OF RECEIPT: 12/3/90
 DATE OF ANALYSIS: 12/10/90
 DATE OF REPORT: 1/16/91

PARAMETER	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6
Chloromethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Bromoform	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Bromomethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Dibromochloromethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Vinyl Chloride	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
2-Chloroethylvinyl Ether	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Chloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Methylene Chloride	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Trichloroethylene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Trichlorofluoromethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,1-Dichloroethene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,1-Dichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
c or t-1,2-Dichloroethylene	4350	BPQL	BPQL	BPQL	BPQL	BPQL
Chloroform	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,2-Dichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,1,1-Trichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Carbon Tetrachloride	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Bromodichloromethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,2-Dichloropropane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
t-1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
c-1,3-Dichloropropene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,1,2,2-Tetrachloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,1,2-Trichloroethane	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Tetrachloroethylene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Benzene	742	BPQL	BPQL	BPQL	BPQL	BPQL
Toluene	32700	1408	18800	BPQL	BPQL	3
Ethylbenzene	69500	BPQL	56300	BPQL	BPQL	BPQL
Chlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,4-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,3-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
1,2-Dichlorobenzene	BPQL	BPQL	BPQL	BPQL	BPQL	BPQL
Xylenes	189000	1530	199000	BPQL	BPQL	10
Total Aromatics as Xylene	4030000	36300	4790000	BPQL	BPQL	192
QL Raised by Factor of:	219	179	1400	2.6	2.7	2.4
% Solids	83.1%	86.1%	82.7%	86.6%	83.0%	88.2%
	Notel	Notel	Notel			Notel

- EPA Method 8010 & 8020; All results reported as ug/l or ppb as dry weight.
 BPQL = Below Practical Quantitation Limit.
 5 ppb for Bromoform, 2-Chloroethylvinyl Ether, & Methylene Chloride
 1 ppb for All other parameters, 10 ppb for Total Aromatics.
 Note 1: Many unknown late eluting Aromatic or Alkene peaks found.

Respectfully Submitted,
SCITEST, INC.


 Roderick J. Lamothe
 Laboratory Director

LABORATORY REPORT

CLIENT NAME: Johnson Co.
 SITE LOCATION: Chittenden Bank/Fotohut
 LABORATORY NO: 1702-90
 PROJECT NO: 78611
 ATTENTION: Mike Pottinger

DATE OF SAMPLE: 11/29/90
 DATE OF RECEIPT: 12/3/90
 DATE OF ANALYSIS: 12/6/90
 DATE OF REPORT: 1/9/91

PARAMETER	TANK #1
Chloromethane	<10
Bromoform	<50
Bromomethane	<10
1,1-Dibromochloromethane	<10
Vinyl Chloride	<10
2-Chloroethylvinyl Ether	<50
1,1-Dichloroethane	<10
Ethylene Chloride	<50
Trichloroethylene	<10
Trichlorofluoromethane	<10
1,1-Dichloroethene	<10
1,1-Dichloroethane	<10
c or t-1,2-Dichloroethylene	<10
Chloroform	<10
1,2-Dichloroethane	<10
1,1,1-Trichloroethane	<10
Carbon Tetrachloride	<10
1,1,2,2-Tetrachloroethane	<10
1,2-Dichloropropane	<10
1,3-Dichloropropene	<10
1,3-Dichloropropene	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
Tetrachloroethylene	<10
Benzene	<10
Toluene	384
Ethylbenzene	241
Chlorobenzene	<10
1,4-Dichlorobenzene	<10
1,3-Dichlorobenzene	<10
1,2-Dichlorobenzene	<10
Aylenes	5900

Note 1

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JAN 10 1991

THE JOHNSON CO., INC.
 MONTPELIER, VERMONT

PA Method 601 & 602; All results reported as ug/l or ppb.

Note 1: The Tank sample contained many heavy unknown aromatic hydrocarbons.

Respectfully Submitted,
 SCITEST, INC.

Roderick J. Lamothe
 Laboratory Director

RJL/cha



APPENDIX E
Monitoring Well Water Level Data

11/16/93 Report of Water Level Measurements at the
Foto-Hut Site, Rutland, Vt. 1-0342-2 DMM
Prepared by The Johnson Company, Inc.

Page 1

WELL ID	WATER LEVEL	TOC ELEV	GS ELEV	DATE	H2O ELEV
MW-1	5.65	689.70	689.90	10/01/93	684.05
MW-1	5.10	689.70	689.90	10/07/93	684.60
MW-1	4.86	689.70	689.90	10/12/93	684.84
MW-1	4.28	689.70	689.90	11/08/93	685.42
MW-2	4.03	689.26	689.76	10/01/93	685.23
MW-2	4.61	689.26	689.76	10/07/93	684.65
MW-2	3.84	689.26	689.76	10/12/93	685.42
MW-2	3.29	689.26	689.76	11/08/93	685.97
MW-3	5.56	689.44	689.59	10/01/93	683.88
MW-3	4.71	689.44	689.59	10/07/93	684.73
MW-3	4.97	689.44	689.59	10/12/93	684.47
MW-3	4.58	689.44	689.59	11/08/93	684.86
MW-4	4.96	689.37	689.87	10/01/93	684.41
MW-4	4.08	689.37	689.87	10/07/93	685.29
MW-4	4.39	689.37	689.87	10/12/93	684.98
MW-4	4.04	689.37	689.87	11/08/93	685.33
MW-5	7.35	688.05	688.55	10/01/93	680.70
MW-5	4.96	688.05	688.55	10/07/93	683.09
MW-5	4.98	688.05	688.55	10/12/93	683.07
MW-5	4.64	688.05	688.55	11/08/93	683.41
MW-6	4.70	0.00	688.48	10/01/93	683.78
MW-7	6.77	687.95	688.51	10/01/93	681.18
MW-7	4.73	687.95	688.51	10/07/93	683.22
MW-7	4.84	687.95	688.51	10/12/93	683.11
MW-7	4.54	687.95	688.51	11/08/93	683.41
MW-8	5.47	690.31	688.43	10/12/93	684.84
MW-8	5.06	690.31	688.43	11/08/93	685.25
OB-1	7.15	692.25	690.25	10/01/93	685.10
OB-1	5.93	692.25	690.25	10/07/93	686.32
OB-1	6.78	692.25	690.25	10/12/93	685.47
OB-1	6.36	692.25	690.25	11/08/93	685.89
PZ-1	4.48	690.13	690.10	11/08/93	685.85

H2O elevations not corrected for vertical hydraulic gradient.
Elevations in feet above National Geodetic Vertical Datum

11/9

FIT. DIST.

1100-430 W CENTER MAPS

DOWNWARD A.C. 11/8 CORRECT: 0.052 11/19

WE CTR SCREEN CORRECT

MW1 685.42 676.5 685.00

PZ1 685.85 684.73 685.60

MW2 685.97 683.36 685.85

MW3 684.86 682.34 684.74

MW4 685.33 682.22 685.32

MW5 683.41 681.53 683.33 ✓

MW7 683.41 681.53 683.33 ✓

MW8 685.25 683.03 685.19

OB1 685.89 681.75 685.80

OB2

NORMALIZE TO CTR → (680 - CTR) 0.052 + WEIER

Calc CTR SCREEN W MW5

TOC - Casing = TO5

688.05 - 3.8 = 684.25

IF TO5 > WE THEN CTR =

684.25 > 683.41

CTR = $\frac{WE - BSE}{2} + BSE$ MW5 CTR SCREEN = $\frac{683.41 - 679.65}{2}$

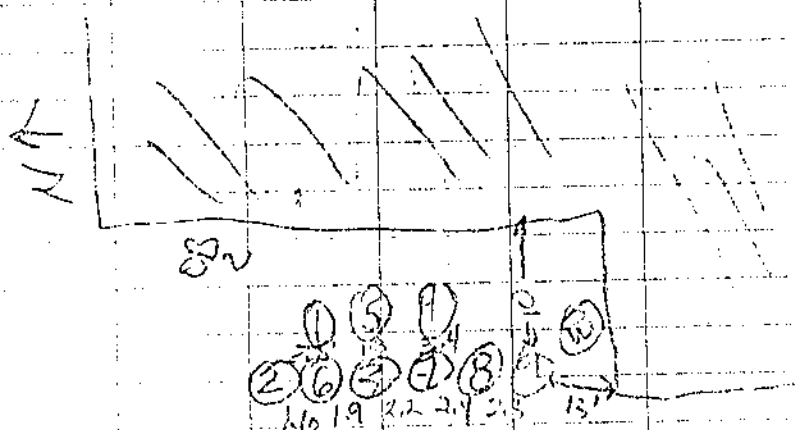
= 681.53

IF TO5 < WE THEN

CTR = $\frac{TO5 - BO5}{2} + BO5$

Backfill around TP5 -
Dig around TP3 - refusal is
rock!! rubble
smell "sweet odor" near TP7

TP locations



OB-2 to 7 = 24.6'

stopped raining @ 1:15

offset 1100

11/8 1-0372-2 13222
FOTOHAT 12:15

RANDOM 1:15		1224.7		
DATE 11/8				
	W	Time	TOL	ELEV
PZ1	4.48	14:10	689.13	685.95
MW1	4.28	14:13	689.70	685.42
MW2	3.29	14:42	689.26	685.97
MW3	4.58	14:25	689.44	684.86
MW4	4.84	14:20	689.37	685.33
MW5	4.64	14:35	688.05	683.41
MW7	4.54	14:30	687.95	683.41
OB1	6.36	14:43	682.25	685.89
OB2	6.30	14:45	682.74	687.5
MW8	5.66	14:52	690.31	685.25

$$(PZ1 - MW1) = (0.43) = 0.05 \frac{FT}{FT}$$

$$(689.70 - 689.26) = (0.44) \text{ DOWNWARD}$$

TOL PZ1 5 3/8" above TOL MW1 0.45"
" " 2.5" " TOL MW1 0.21

OFFSITE 15:00

MW1 TOL = 689.70 TOL = 689.90
CALC PZ1 TOL = 690.15 690.11

AVE 690.13 PZ1

APPENDIX F
Water Supply Well Data

SITE 91-1011
FOTO HUT PROPERTY



APA OR WHPA
PUBLIC SUPPLY

- PUBLIC UNCONS. OR GRAVEL WELL
- PUBLIC BEDROCK WELL

16C

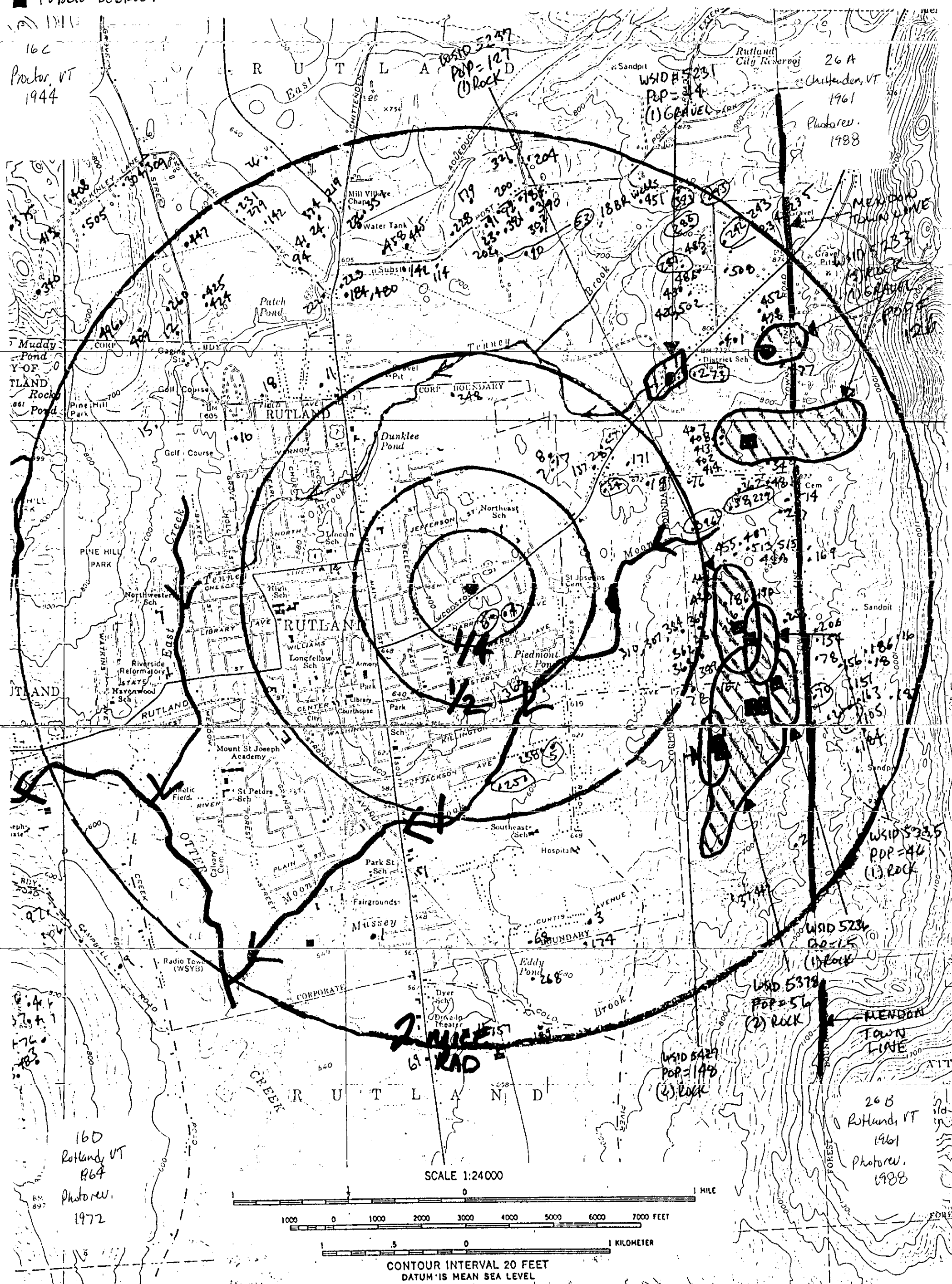
Proctor, VT
1944

Private gravel

TOWN LINE

Surface Water

Rutland City Corp Boundary



WELL NO. / TAG NO.

5-90

(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (ION), Waterbury, VT 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (ION)
Waterbury, Vt. 05676

WELL COMPLETION REPORT

SEP 23 1991

Location map attached to WCR

DEPARTMENT USE ONLY

E.C. 19 U.S.G.S.
Field Location ☐ Map area 26B4
Latitude " " Elev. " "
Longitude " " Topo. " "
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

1. WELL OWNER Mr. + Mrs. B. Alexander, 100 Meadow St. Rutland, Vt.
OR
WELL PURCHASER _____
2. LOCATION OF WELL: TOWN Rutland City SUBDIVISION _____ LOT NO. _____
3. DATE WELL WAS COMPLETED 2/12/90
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other _____
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with L-P, ☐ Other _____
7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted, ☐ Other _____
8. TOTAL DEPTH OF WELL: 185 feet below land surface.
9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____
10. CASING DETAILS: Total length 165 ft. Length below L.S. 163 1/2 ft. Dia. 6 in. Material Steel Wt. 17 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type _____, Drilled _____ in. hole _____ ft. in Bedrock
☐ Other _____
13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft., Diameter _____ in., Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used, Gravel Size or Type _____
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 1 Hour at 20 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Weir, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: _____ feet below land surface, Date or Time measured _____, Overflows at _____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where _____
17. SPECIAL NOTES: _____

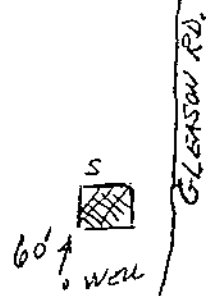
18. WELL LOG

Depth from Land Surface Feet	Feet	Water Bearing	Formation Description	Sketch
Ground Surface	140		Brown sand, stones, boulders	
140	185	✓	White + brown limestone	

19. SITE MAP

Show permanent structures such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.

Route 4 - MENDON



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below:

Feet	Gallons Per Minute

WELL DRILLED BY: Charles "Doc" Higgins

P. O. Box 1024
Castleton, VT 05735

DOING BUSINESS AS: _____

Company or Business Name

REPORT FILED BY: P. M. DiDri

Authorized Signature

DATE OF REPORT: 5/90 WELL DRILLERS LIC. NO. 227

WELL NO. / TAG NO.

22-89

(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (10N), Waterbury, VT 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (10N)
Waterbury, Vt. 05676
WELL COMPLETION REPORT

JUG 30 1990

Location map attached to WCR

DEPARTMENT USE ONLY

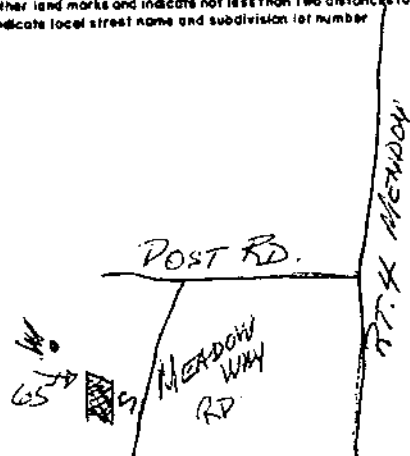
E.C. 17 U.S.G.S. 26B4
Field Location ☐ Map area 26B4
Latitude • • • Elev. •
Longitude • • • Topo. •
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

1. WELL OWNER Mark Stockton Mendon VT
OR
WELL PURCHASER Mendon Rutland City
2. LOCATION OF WELL: TOWN Mendon SUBDIVISION • LOT NO. •
3. DATE WELL WAS COMPLETED 6/19/89
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other •
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other •
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other •
7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted; ☐ Other •
8. TOTAL DEPTH OF WELL: 275 feet below land surface.
9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Buried, ☐ in Pit, ☐ Removed, ☐ None used, ☐ Other •
10. CASING DETAILS: Total length 240 ft. Length below L.S. 238 1/2 ft. Dia. 6 in. Material Steel Wt. 17 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used • ft. Diameter • in. Material • Weight • lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type •, Drilled • in. hole • ft. in Bedrock
☐ Other •
13. SCREEN DETAILS: Make and Type •, Material •, Length • ft., Diameter • in.
Slot Size •, Depth to top of screen in feet below land surface • ft., Gravel pack if used: Gravel Size or Type •
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 1 Hours at 30 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: • feet below land surface, Date or Time measured •, Overflows at • G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, if Yes, Where •
17. SPECIAL NOTES: •
18. WELL LOG

Depth from Land Surface	Water Bearing	Formation Description	Sketch
Feet	Feet		
Ground Surface	200	Brown hard pan and stones	
200	275	Brown and white limestone	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY:

Charles "Doc" Higgins
P. O. Box 1024
Castleton, VT 05735

DOING BUSINESS AS:

Company or Business Name

REPORT FILED BY:

R.M. DiDro

Authorized Signature

DATE OF REPORT

6-89

WELL DRILLERS LIC NO. 227

WELL COMPLETION REPORT

Location map attached to WCR

W.R. 14 U.S.G.S.

Field Location ☐ Map area 26B

Latitude _____ " Elev. _____

Longitude _____ " Topo. _____

Scale: 62,500 ☐, 25,000 ☐, 24,000 ☐

Data in Town Files ☐ _____

(For Driller's Use)

1. WELL OWNER _____
Name _____ Permanent Mailing Address _____ Gleason Rd.

_____ Durand City SUBDIVISION _____ LOT NO. _____

DATE WHEN WORK COMPLETED 9-7-85 0

4. PROPOSED USE OF WELL: ☐ Domestic ☒ Other Church

5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,

Итого: $\frac{1}{2} \cdot 1000 = 500$ шт.

7. TYPE OF WELL: ☒ Open Hole in Bedrock ☐ Open End Casing ☐ Screened or Slotted ☐ Other _____

8. TOTAL DEPTH OF WELL: 185 feet below land surface.

9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____

10. CASING DETAILS, Total length 500 ft. Length below C.S. 500 ft. C.S. 0 ft. Weight 1000 lb./ft.

METHOD OF SEALING CASING TO BEDROCK: Grout type Cement, Drilled in. hole ft in bedrock

☐ Other _____

18A SCREEN DETAILS: Make and Type _____, Material _____, Length _____, Diameter _____

Stop Size _____, Depth to top of screen in feet below land surface _____

14. FIELD TEST: ☒ Gauged, ☒ Pumped, ☒ Compressed Air

☐ Permanent Airline installed

15. STATIC WATER LEVEL: 25 feet below land surface. Date or Time measured _____, Overflows at _____ G.P.M.

16. **WATER ANALYSIS:** Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where _____

17. SPECIAL NOTES: _____

18. SITE MAP _____

18. WELL LOG

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number

[illegible]

Hand-drawn sketch map showing the location of a well and septic tank. The map includes labels for "Town Line Rd.", "Gleason Rd.", "Rt 7", "Rt 4", "septic tank", and "well". A note at the bottom states "Well is 111' from septic."

20. TESTED YIELD

If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: Gerald Parker, Jr.

DOING BUSINESS AS: Parker Water Wells
Company or Business Name

REPORT FILED BY: Donald Parker
Authorized Signature

DATE OF REPORT: 1/14/86 WELL DRILLERS LIC. NO. 176

WELL NUMBER

Form WR-59
Rev. 7-72

26 B1

(For Driller's Use)

State of Vermont
DEPARTMENT OF WATER RESOURCES
WELL COMPLETION REPORT6
137 DO NOT FILL IN

(This report must be completed and submitted to the Department of Water Resources, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of well. Complete or line out all blanks.)

WELL OWNER Mr. John LaFountain Gleason Road Rutland, Vt. 05701
Name Mailing Address

TOWN IN WHICH WELL IS LOCATED: Rutland City (Please locate well on a large scale map to accompany this report. Maps are available on request.)
DATE WELL WAS COMPLETED: 11/15/1973

PROPOSED USE OF WELL: ☒ Domestic ☐ Agricultural ☐ Business Establishment
☐ Municipal ☐ Industrial ☐ Other (Specify)
DRILLING EQUIPMENT: ☒ Cable Tool ☒ Rotary ☐ Air Percussion
☐ Other (Specify)

TOTAL DEPTH OF WELL: 107 STATIC WATER LEVEL: 35

CASING DETAILS: Length 107 ft. Diameter 6 in. Material Steel
Weight 19 lb./ft.

SCREEN DETAILS: Make Material Length ft.
Diameter in. Slot Size

METHOD OF SEALING CASING TO SCREEN OR BEDROCK: Drive shoe

FINAL YIELD TEST: ☐ Bailed, or ☒ Pumped, or ☒ Compressed Air
6 Hours at 7 gallons per minute
Water level during yield test

WELL LOG

Depth From
Ground Surface
Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse, color of material, structure (loose, packed, cemented, hard). For example: Surface to 27 ft. fine, packed, yellow sand; to 134 ft. gray granite.

Surface to 89 ft. Sand, gravel, boulders and quicksand

89 to 94 ft. Blue clay

94 to 107 ft. Sand, gravel and boulders

to ft.

to ft.

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

90 ft.

7

G.P.M.

ft.

G.P.M.

ft.

G.P.M.

WATER ANALYSIS: Has water been analyzed? ☐ Yes ☐ No If Yes, Where
Include Analysis

DRILLED BY: Charles Wilkins

DOING BUSINESS AS: Ottauquechee Drilling Co., Inc.

DATE OF REPORT: 12/12/1973

WELL DRILLERS LICENSE NO. 6

2634
State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WR #5 USGS RTW-237

WELL COMPLETION REPORT

Field Loc ☒ Map Des (Rutland City)
 La 43° 36' 30" Alt 870 TS
 Lo 72° 56' 20" ☐ HU
 Scale: 62500 ☐ , 25000 ☐ , 24000 ☐

mitted to
 ate Office
 later than

Do not fill in
 State Well No. 4336 22
 Other No. 72 5731

WELL

OWNER

McLaughlin

Name

Killington Hse

Rutland Vt.

Mailing Address

WELL

DRILLER

Rt W Artesian Well Co of Vt Inc

Name

Man. Dero + Jt

Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic☐ Agricultural☒ Business
Establishment☐ Municipal☐ Industrial☐ Other (Specify use)

CASING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: 427 Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	6 Hours 30 GPM	Static: 130 Feet During Yield Test: 420 Feet	Make:
Diameter: 6 Inches			DRILLING EQUIPMENT	Material:
Kind: Steel			<input type="checkbox"/> Cable Tool	Slot Size
Weight: 19-45 lbs/p/ft			<input type="checkbox"/> Rotary	Length: Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: 30 GPM		<input type="checkbox"/> Air Percussion	Diameter: in.
			<input type="checkbox"/> Other (specify)	

TOTAL DEPTH OF WELL

430

FEET

TOWN WELL IS LOCATED IN:

Rutland

(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
0 ft. to 90 ft.	Hardpan & Packed Gravel
90 ft. to 170 ft.	Limestone
170 ft. to 415 ft.	Hardpan Dry
415 ft. to ft.	
ft. to 430 ft.	Gravel

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
 List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed?

Where was sample analyzed?

(Include analysis of sample if analyzed by other than Department of Water Resources.)

Date Well was Completed

4-9-71

Date of Report

Water Well Driller's License No.

16

Well Driller

Pete Rott mgr.
 (signature)

26 B 1
State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

(This report must be completed and submitted to the Department of Water Resources, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of well.)

Do not fill in
State Well No. 133641
Other No. 125740

WELL
OWNER Mr. Garth Guyette Gleason Road Rutland, Vt. 05701
Name Mailing Address

WELL
DRILLER Ottawaquechee Drilling Co., Inc. West Bridgewater, Vt. 05035
Name Mailing Address

PROPOSED USE OR USES (Check):

- ☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: 57 Feet	<input type="checkbox"/> Bailed or	12 Hours	Static: Flowing Feet	Make:
Diameter: 6 Inches	<input checked="" type="checkbox"/> Pumped or	6 GPM	During Yield Test: Feet	Material:
Kind: Steel	<input type="checkbox"/> Compressed Air		DRILLING EQUIPMENT	Slot Size
Weight: 19 lbs/p/ft			<input checked="" type="checkbox"/> Cable Tool	Length: Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: 6 GPM		<input type="checkbox"/> Rotary	Diameter: in.
			<input type="checkbox"/> Air Percussion	
			<input type="checkbox"/> Other (specify)	

TOTAL DEPTH OF WELL 57 FEET TOWN WELL IS LOCATED IN: Rutland CITY
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
0 ft. to 41 ft.	Fine sand, muck, cobbles and boulders.
41 ft. to 57 ft.	Sand and gravel.
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling, List Below

30 ft.	6 G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed?

Where was sample analyzed?

(Include analysis of sample if analyzed by other than Department of Water Resources.)

Date Well was Completed 2/15/71

Date of Report 3/15/71

Water Well Driller's License No. 6

Well Driller *Lloyd J. Meyer*
(signature)

DATE OF REPORT: 12/20/88 WELL DRILLERS LIC. NO. 196

WELL NO. / TAG NO.

1988-72

(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation 103 South Main Street (ION), Waterbury, VT 05676 no later than 60 days after completion of the well.

State of Vermont
Dept. of Environmental Conservation
103 South Main Street (ION)
Waterbury, VT. 05676

WELL COMPLETION REPORT

NOV 16 1988

Location map attached to WCR

DEPARTMENT USE ONLY

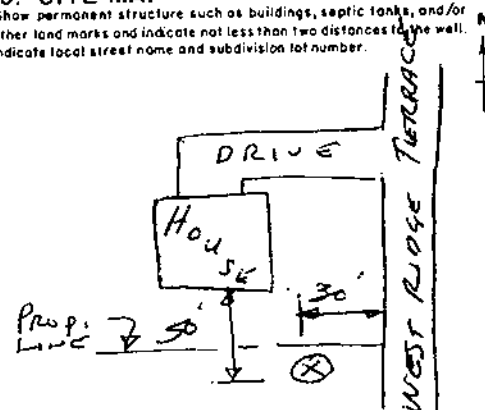
E.C. 435 U.S.G.S. _____
Field Location ☐ Map area 26b4
Latitude _____ " Elev. _____
Longitude _____ " Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

1. WELL OWNER DAVID Fucci Box 117 Rutland, VT.
OR
WELL PURCHASER _____
2. LOCATION OF WELL: TOWN Rutland Town SUBDIVISION Grand View LOT NO. _____
3. DATE WELL WAS COMPLETED 9-16-88
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other _____
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____
7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted, ☐ Other _____
8. TOTAL DEPTH OF WELL: 308 feet below land surface.
9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____
10. CASING DETAILS: Total length 316 ft. Length below L.S. 308 ft Dia. 6 in. Material Steel Wt. 17 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type _____, Drilled 8 3/4 in. hole 113 ft in Bedrock
☐ Other _____
13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft., Diameter _____ in.,
Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used: Gravel Size or Type _____
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 2 Hours at 20 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: 35 feet below land surface, Date or Time measured 9-17-88, Overflows at _____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☒ No, If Yes, Where _____
17. SPECIAL NOTES: _____
18. WELL LOG

Depth from Land Surface	Water Bearing	Formation Description	Sketch
Feet	Feet		
Ground Surface	195	GLACIAL Till	
195	308	Fractured Dolomite	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: RAY & JEFF LEONARDDOING BUSINESS AS: GREEN Mt. Drilling Co., IncREPORT FILED BY: Raymond L. Leonard Jr.DATE OF REPORT: 9-18-88WELL DRILLERS LIC. NO. 51

1986-97
(For Driller's Use)DEPARTMENT OF WATER RESOURCES
AND ENVIRONMENTAL ENGINEERING
WELL COMPLETION REPORTW.R. 381 U.S.G.S.
Field Location ☐ Map area
Latitude " Elev.
Longitude " Topo.
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐This report must be completed and submitted
to the Department of Water Resources and
Environmental Engineering, State Office
Building, Montpelier, Vermont 05602, no later
than 60 days after completion of the well.

Location map attached to WCR 328

1. WELL OWNER KEITH YOUNG CHASALNA DR. RUTLAND, VT.
OR
WELL PURCHASER _____
Name Permanent Mailing Address2. LOCATION OF WELL: TOWN RUTLAND TOWN SUBDIVISION _____ LOT NO. _____
3. DATE WELL WAS COMPLETED 10-27-864. PROPOSED USE OF WELL ☒ Domestic, ☐ Other _____5. REASON FOR DRILLING WELL ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted, ☐ Other _____8. TOTAL DEPTH OF WELL: 140 feet below land surface.9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Burled, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____10. CASING DETAILS: Total length 60 ft. Length below L.S. 58'6" Dia. 6 in. Material STEEL Wt. 17 lb./ft.

11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb./ft.

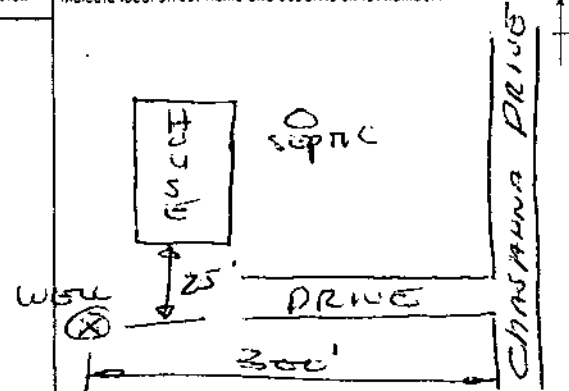
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type _____, Drilled 8 3/4 in. hole, 13'6" ft. In Bedrock
☐ Other _____13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft., Diameter _____ in.,
Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used: Gravel Size or Type _____14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 1 Hours at 50 Gallons per minute
Measured by: ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed15. STATIC WATER LEVEL: 15 feet below land surface, Date or Time measured 10-28-86, Overflows at _____ G.P.M.16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes, ☒ No, If Yes, Where _____

17. SPECIAL NOTES: _____

18. WELL LOG

Depth from Land Surface		Water Bearing	Formation Description	Sketch
Feet	Feet			
Ground Surface	20		SAND	
20	45		GLACIAL TILL	
45	140	✓	DUNHAM DELOMITE	
	118	✓	Lg. FRACTURE w/ WATER	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or
other land marks and indicate not less than two distances to the well.
Indicate local street name and subdivision lot number.

20. TESTED YIELD

If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: RAY & JEFF LEONARDDOING BUSINESS AS: GREEN MT. DRILLING CO., INC.
Company or Business NameREPORT FILED BY: Raymond L. Leonard
Authorized SignatureDATE OF REPORT: 11-8-86 WELL DRILLERS LIC. NO. 51

WELL NUMBER

State of Vermont

WATER RESOURCE USE ONLY

1986-38

(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DEPARTMENT OF WATER RESOURCES
AND ENVIRONMENTAL ENGINEERING
WELL COMPLETION REPORT

JUN 13 1986

Location map attached to WCR 365

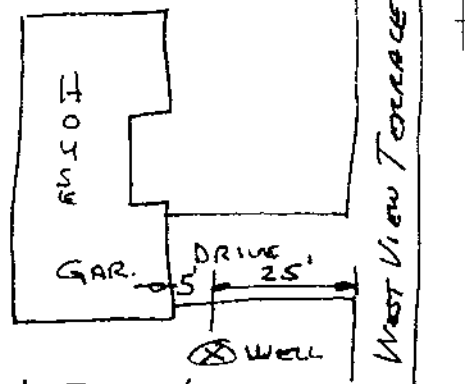
W.R. 368 U.S.G.S. 2684
Field Location ☐ Map area 2684
Latitude " Elev.
Longitude " Topo.
Scale: 62,500 ☐ 125,000 ☐ 24,000 ☐
Data in Town Files ☐

1. WELL OWNER Chris Ficci West View Terr. Rutland, Ut.
OR
WELL PURCHASER David Ficci Box 117 Rutland, Ut.
2. LOCATION OF WELL: TOWN Rutland Town SUBDIVISION LOT NO.
3. DATE WELL WAS COMPLETED 5-27-86
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other
5. REASON FOR DRILLING WELL: ☒ Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other
7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted, ☐ Other
8. TOTAL DEPTH OF WELL: 240 feet below land surface
9. CASING FINISH: ☐ Above ground, finished, ☒ Above ground, unfinished, ☐ Rusted, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other
10. CASING DETAILS: Total length 242 ft. Length below S 240 ft. Dia. 6 in. Material Steel Wt. 17 lb/ft
11. LINER OR INNER CASING DETAILS: Length used ft. Diameter in. Material Weight lb/ft
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Grout Seal, ☐ Grout - type , Drilled 8 3/4 in. hole 29 ft. in Bedrock
☐ Other
13. SCREEN DETAILS: Make and Type Material Length ft. Diameter in.,
Slot Size , Depth to top of screen in feet below land surface ft., Gravel placed: Gravel Size or Type
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, 1 in. air at 7 1/2 gallons per minute
Measured by: ☒ Bucket, ☐ Air Lift Pump, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: feet below land surface, Date Time measured Overflows at G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes, ☒ No, if yes, where
17. SPECIAL NOTES:
18. WELL LOG

Depth from Land Surface	Water	Formation Description	Sketch
Feet	Feet	Bearing	
Ground Surface	<u>211</u>		
<u>211</u>	<u>240</u>	<u>✓</u>	
		<u>GLACIAL TILL w/ Boulders</u>	
		<u>Fractured Dolomite</u>	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and in scale not less than two distances to the well indicate road, street name and subdivision lot number



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: RAY & JEFF LEONARDDOING BUSINESS AS: GREEN Mt. Drilling Co., Inc.REPORT FILED BY: Raymond L. Leonard Jr.DATE OF REPORT 6-12-86WELL DRILLERS LIC NO 51

Well #1
(For Driller's file)

DEPARTMENT OF WATER RESOURCES
AND ENVIRONMENTAL ENGINEERING
WELL COMPLETION REPORT

W.R. 360 U.S.G.S.
Field Location ☐ Map area 2681
Latitude " Elev.
Longitude " Topo.
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files U

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DATE 2 3 1986
Location map attached to WCR

1. WELL OWNER Rick Hackett Susan Lane Rutland, Ut 05701
OR
WELL PURCHASER

2. LOCATION OF WELL: TOWN Rutland SUBDIVISION LOT NO.

3. DATE WELL WAS COMPLETED 5-10-85

4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other

5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other

6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other

7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Stotted, ☐ Other

8. TOTAL DEPTH OF WELL: 125 feet below land surface.

9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other

10. CASING DETAILS: Total length 110 ft Length below L.S. 108 ft Dia. 6 in. Material Steel Wt. 17 lb./ft.

NA LINER OR INNER CASING DETAILS: Length used ft. Diameter in. Material Weight lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type , Drilled in hole ft. in Bedrock
☐ Other

NA SCREEN DETAILS: Make and Type , Material , Length ft., Diameter in.,
Slot Size , Depth to top of screen in feet below land surface ft., Gravel pack if used: Gravel Size or Type

14. YIELD TEST: ☐ Boiled, ☐ Pumped, ☐ Compressed Air, for Hours at Gallons per minute
Measured by ☐ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed

15. STATIC WATER LEVEL: feet below land surface, Date or Time measured , Overflows at G.P.M.

16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where

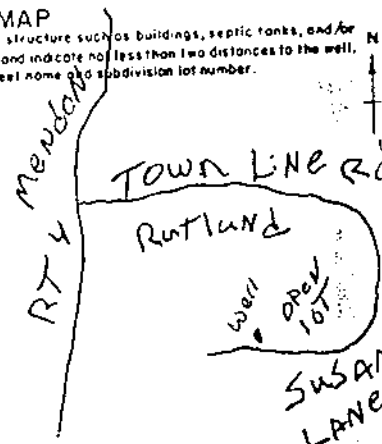
17. SPECIAL NOTES:

18. WELL LOG

Depth from Land Surface		Water Bearing	Formation Description	Sketch
Feet	Feet			
Ground Surface	<u>106</u>		<u>SAND</u>	
<u>106</u>	<u>104</u>		<u>BROKEN UP Lime Stone</u>	
<u>104</u>	<u>125</u>		<u>Mud Seams</u>	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate no less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: Gerald Parker, Jr.

DOING BUSINESS AS: Parker Water Wells
Company or Business Name

REPORT FILED BY: Gerald E. Parker Jr.
Authorized Signature

DATE OF REPORT: 1/14/86 WELL DRILLERS LIC. NO. 17

WELL NUMBER

State of Vermont

WATER RESOURCE USE ONLY

1985-94

(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DEPARTMENT OF WATER RESOURCES AND ENVIRONMENTAL ENGINEERING WELL COMPLETION REPORT

DEC 9 1985

Location map attached to WCR 357

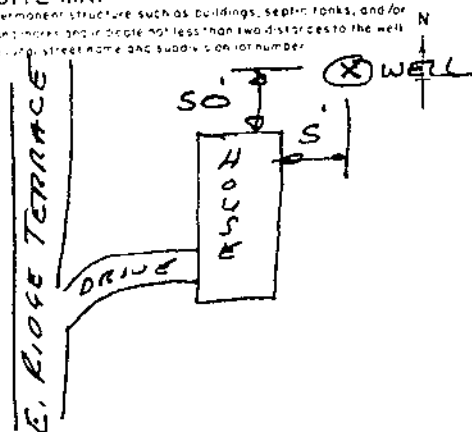
W.R. 364 U.S.G.S. _____
Field Location ☐ Map area 2684
Latitude _____ " Elev. _____
Longitude _____ " Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

- WELL OWNER ARTHUR CHISOLM EAST RIDGE TERRACE RUTLAND
OR DAVID FULLI Box 117 RUTLAND, VT.
WELL PURCHASER DAVID FULLI Box 117 RUTLAND, VT.
- LOCATION OF WELL: TOWN RUTLAND TOWN SUBDIVISION GRAND VIEW LOT NO. _____
ACRES
- DATE WELL WAS COMPLETED 11-19-85
- PROPOSED USE OF WELL ☒ Domestic, ☐ Other _____
- REASON FOR DRILLING WELL ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____
- DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____
- TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted, ☐ Other _____
- TOTAL DEPTH OF WELL: 400 feet below land surface
- CASING FINISH: ☐ Above ground, finished, ☒ Above ground, unfinished, ☐ Eased, ☐ in Pit, ☐ Removed, ☐ None used, ☐ Other _____
- CASING DETAILS: Total length 161 ft. Length below S 159'6" Dia 6 in. Material STEEL ID 17 ID / IT
- LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb / ft
- METHOD OF SEALING CASING TO BEDROCK ☒ Grout Shoe, ☐ Grout - type _____ Drilled 8 3/4 in. hole 19'6" in Bedrock
☐ Other _____
- SCREEN DETAILS: Make and Type _____ Material _____ Length _____ ft. Diameter _____ in.
Slot Size _____ Depth to top of screen in feet below land surface _____ ft. Gravel pack: used _____ Gravel Size or Type _____
- YIELD TEST: ☐ Bailed, ☐ Pumped ☒ Compressed Air, for 1 hours at 2 1/2 gallons per minute
Measured by ☒ Bucket, ☐ Airline pump, ☐ Meter ☐ Permanent Airline installed
- STATIC WATER LEVEL: 100 feet below land surface, Date of measurement 11-20-85 Overhaul _____ G.P.M.
- WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☒ No, if Yes Where _____
- SPECIAL NOTES: _____
- WELL LOG

Depth from Land Surface	Water Bearing	Formation Description	Sketch
Feet	Feet		
Ground Surface	<u>120</u>	<u>GLACIAL TILL w/ Bay Holes</u>	
<u>120</u>	<u>140</u>	<u>OCRE</u>	
<u>140</u>	<u>400</u>	<u>DUNHAM DOLOMITE</u>	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other landmarks and in detail not less than two distances to the well and color, lot, street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, indicate

Feet	Gallons Per Minute

WELL DRILLED BY: RAY & JEFF LEONARDDOING BUSINESS AS: GREEN MOUNT DRILLING CO., INC.REPORT FILED BY: Raymond L. Leonard Jr.DATE OF REPORT 11-26-85WELL DRILLERS LIC. NO. 51

W.R. 362 U.S.G.S. _____
Field Location ☐ Map area 216B4
Latitude _____ " Elev. _____
Longitude _____ " Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data In Town Files ☐ _____

FEB 11 1986

Location map attached to WCR

- ## 18. WELL LOG

19. SITE MAP

19. SITE MAP
Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.

Q44
Rutledge

50mic
104 ft

- WELL DRILLED BY: Gerald Parker, Jr.

DOING BUSINESS AS: Barker Water Wells

REPORT FILED BY: Donald E. Fackey

DATE OF REPORT: 1/27/56 WELL DRILLERS LIC. NO. 176

DEPARTMENT OF WATER RESOURCES
AND ENVIRONMENTAL ENGINEERING
WELL COMPLETION REPORT

DEC 7 1984

W.R. 348 U.S.G.S.
Field Location ☐ Map area 26A3
Latitude " Elev.
Longitude " Topo.
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

(For Driller's Use)
This report must be completed and submitted
to the Department of Water Resources and
Environmental Engineering, State Office
Building, Montpelier, Vermont 05602, no later
than 60 days after completion of the well.

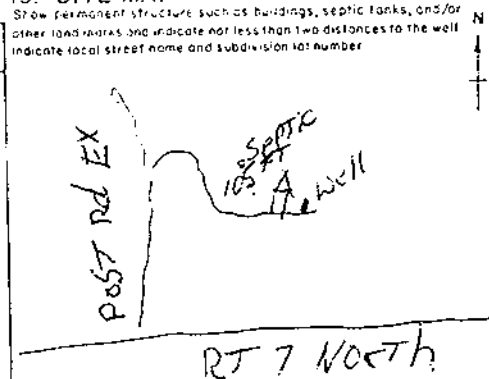
Location map attached to WCR

1. WELL OWNER Frank Cioffi Name Permanent Mailing Address
OR
WELL PURCHASER Name Permanent Mailing Address
2. LOCATION OF WELL: TOWN Rutland SUBDIVISION LOT NO.
3. DATE WELL WAS COMPLETED 7/16/84
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other
7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted; ☐ Other
8. TOTAL DEPTH OF WELL: 150 feet below land surface
9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Burled, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other
10. CASING DETAILS: Total length 100 ft. Length below L.S. 98 ft. Dia. 6 in. Material Steel Wt. 17 lb./ft.
- NA LINER OR INNER CASING DETAILS: Length used ft. Diameter in. Material Weight lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type , Drilled in hole ft. in Bedrock
☐ Other
- NA SCREEN DETAILS: Make and Type , Material , Length ft., Diameter in.,
Slot Size , Depth to top of screen in feet below land surface ft., Gravel pack if used: Gravel Size or Type
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 2 Hours at 30 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: 10 feet below land surface, Date or Time measured , Overflows at G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☒ No, If Yes, Where
17. SPECIAL NOTES:
18. WELL LOG

Depth from Land Surface		Water Bearing	Formation Description	Sketch
Feet	Feet			
Ground Surface	<u>50</u>		<u>SAND</u>	
<u>50</u>	<u>100</u>		<u>LAYERS lime stone</u>	
<u>100</u>	<u>150</u>		<u>lime stone</u>	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: Herald E. Parker Jr.
DOING BUSINESS AS: Parker Water Wellz
REPORT FILED BY: Herald E. Parker Jr.
DATE OF REPORT: 12/6/84 WELL DRILLERS LIC. NO. 176

DEPARTMENT OF WATER RESOURCES
AND ENVIRONMENTAL ENGINEERING
WELL COMPLETION REPORT

W.R. 334 U.S.G.S. _____
Field Location ☐ Map area 1607
Latitude _____ "Elev. _____
Longitude _____ "Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

(For Driller's Use)
This report must be completed and submitted
to the Department of Water Resources and
Environmental Engineering, State Office
Building, Montpelier, Vermont 05602, no later
than 60 days after completion of the well.

APR 1 1985

Location map attached to WCR 317

1. WELL OWNER Well 103/EA
Name John Martin Permanent Mailing Address RFD Center Rutland, Vt. 05734

OR
WELL PURCHASER _____ Name _____ Permanent Mailing Address _____

2. LOCATION OF WELL: TOWN Rutland SUBDIVISION Flory Heights LOT NO. _____

3. DATE WELL WAS COMPLETED 3-8-85

4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other _____

5. REASON FOR DRILLING WELL: ☐ New Supply, ☒ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____

6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____

7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted; ☐ Other _____

8. TOTAL DEPTH OF WELL: 665 feet below land surface.

9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____

10. CASING DETAILS: Total length 60 ft Length below L.S. 58 ft Dia. 6 in. Material Iron Steel Wt. 19 lb./ft.

11. LINER OR INNER CASING DETAILS: Length used _____ ft Diameter _____ in. Material _____ Weight _____ lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - Type _____, Drilled _____ in hole _____ ft in Bedrock
☐ Other _____

13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft, Diameter _____ in.,
Slot Size _____, Depth to top of screen in feet below land surface _____ ft, Gravel pack if used: Gravel Size or Type _____

14. YIELD TEST: ☐ Boiled, ☐ Pumped, ☒ Compressed Air, for 3 Hours at 1 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed

15. STATIC WATER LEVEL: 200 feet below land surface, Date or Time measured 3-11-85, Overflows at _____ G.P.M.


16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☒ No, If Yes, Where _____

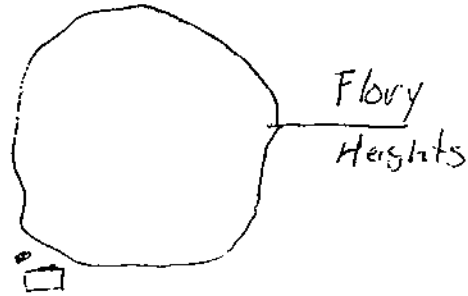
17. SPECIAL NOTES: Did not use the well because of low static level.

18. WELL LOG

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.

Depth from Land Surface		Water Bearing	Formation Description	Sketch
Feet	Feet			
Ground Surface	<u>58</u>		<u>Clay & Rocks</u>	
<u>58</u>	<u>57.0</u>		<u>Black shale</u>	
<u>57.0</u>	<u>665</u>		<u>Limestone</u>	



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: Gerald Parker Jr.

DOING BUSINESS AS: Parker Water Wells
Company or Business Name

REPORT FILED BY: Gerald Parker Jr.
Authorized Signature

DATE OF REPORT: 3/25/85 WELL DRILLERS LIC. NO. 176

1984-43
(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DEPARTMENT OF WATER RESOURCES AND ENVIRONMENTAL ENGINEERING WELL COMPLETION REPORT

SEP 17 1984

Location map attached to WCR

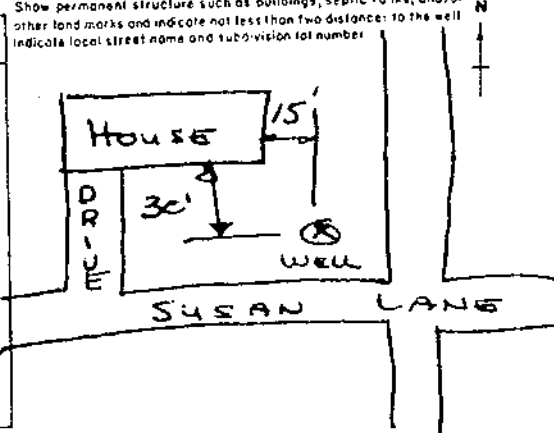
W.R. 310 U.S.G.S.
Field Location ☐ Map area 26B4
Latitude _____ Elev. _____
Longitude _____ Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

1. WELL OWNER FRANK BRENN SUSAN LANE RUTLAND TOWN, VT.
OR
WELL PURCHASER DAVID FUCCI DAVID RD. RUTLAND TOWN, VT.
2. LOCATION OF WELL: TOWN RUTLAND TOWN SUBDIVISION GRAND VIEW ACRES LOT NO. _____
3. DATE WELL WAS COMPLETED 7-24-84
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other _____
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____
7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted; ☐ Other _____
8. TOTAL DEPTH OF WELL: 200 feet below land surface.
9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Burled, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____
10. CASING DETAILS: Total length 181 ft. Length below L.S. 179 ft. Dia. 6 in. Material STEEL wt. 17 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type _____ Drilled 8 3/4 hole 8 ft. in Bedrock
☐ Other _____
13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft., Diameter _____ in.,
Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used: Gravel Size or Type _____
14. YIELD TEST: ☐ Boiled, ☐ Pumped, ☒ Compressed Air, for 2 Hours at 100 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: 95 feet below land surface, Date or Time measured 7-24-84, Overflows at _____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes, ☒ No, If Yes, Where _____
17. SPECIAL NOTES: _____
18. WELL LOG

Depth from Land Surface	Water	Formation Description	Sketch
Feet	Feet	Bearing	
Ground Surface	171		
171	190	GLACIAL TILL	
190	200	DUNHAM Dolomite	
		Fractured Dolomite	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: RAY E. JEFF LEONARD

DOING BUSINESS AS: GREEN MT. DRILLING CO., INC.
Company or Business Name

REPORT FILED BY: Raymond L. Leonard
Authorized Signature

DATE OF REPORT: 8-4-84 WELL DRILLERS LIC. NO. 51

WELL NUMBER

State of Vermont

WATER RESOURCE USE ONLY

1984-21

(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DEPARTMENT OF WATER RESOURCES AND ENVIRONMENTAL ENGINEERING WELL COMPLETION REPORT

W.R. 307 U.S.G.S. _____
Field Location ☐ Map area 26A3
Latitude _____ "Elev. _____
Longitude _____ "Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files () _____

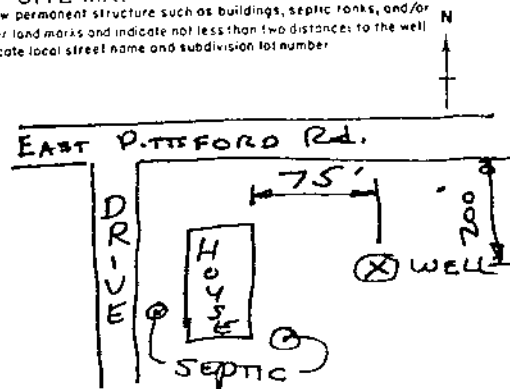
Location map attached to WCR

1. WELL OWNER ERNEST MCKIRRYHER RFD RUTLAND, VT.
OR
WELL PURCHASER _____
Name _____ Permanent Mailing Address _____
2. LOCATION OF WELL: TOWN RUTLAND TOWN SUBDIVISION _____ LOT NO. _____
3. DATE WELL WAS COMPLETED 5-9-84
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other _____
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____
7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted, ☐ Other _____
8. TOTAL DEPTH OF WELL: 405 feet below land surface.
9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____
10. CASING DETAILS: Total length 138 ft. Length below L.S. 136 ft. Dia. 6 in. Material STEEL Wt 17 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type _____, Drilled 8 3/4 in hole 55 ft in Bedrock
☐ Other _____
13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft, Diameter _____ in.,
Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used: Gravel Size or Type _____
14. YIELD TEST: ☐ Boiled, ☐ Pumped, ☒ Compressed Air, for 1 Hours at 2 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Weir, ☐ Meter ☐ Permanent Airline Installed
15. STATIC WATER LEVEL: 30 feet below land surface, Date or Time measured 5-10-84, Overflows at _____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes, ☒ No, If Yes, Where _____
17. SPECIAL NOTES: _____
18. WELL LOG

Depth from Land Surface		Water Bearing	Formation Description	Sketch
Feet	Feet			
Ground Surface	<u>75</u>		<u>GLACIAL TILL</u>	
<u>75</u>	<u>85</u>		<u>OCRE</u>	
<u>85</u>	<u>115</u>		<u>ROTTEN LEDGE w/OCRE SEAMS</u>	
<u>115</u>	<u>315</u>	<input checked="" type="checkbox"/>	<u>DUNHAM DOLOMITE</u>	
<u>315</u>	<u>340</u>		<u>GRAY QUARTZ</u>	
<u>340</u>	<u>405</u>	<input checked="" type="checkbox"/>	<u>DUNHAM DOLOMITE</u>	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute
<u>280</u>	<u>1/2</u>
<u>330</u>	<u>1/2</u>

WELL DRILLED BY: RAY & JEFF LEONARDDOING BUSINESS AS: GREEN MT. DRILLING CO., INC.
Company or Business NameREPORT FILED BY: Raymond L. Leonard Jr.
Authorized SignatureDATE OF REPORT: 5-9-84 WELL DRILLERS LIC. NO. 51

WELL NUMBER

State of Vermont

WATER RESOURCE USE ONLY

DEPARTMENT OF WATER RESOURCES
AND ENVIRONMENTAL ENGINEERING
WELL COMPLETION REPORT

(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DEC 9 1983

Location map attached to WCR

W.R. 296 U.S.G.S. _____
Field Location ☐ Map area 26B1
Latitude _____ " Elev. _____
Longitude _____ " Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

1. WELL OWNER _____ Name _____ Permanent Mailing Address _____
OR
WELL PURCHASER Tim Raymond Mussey St. Rutland, VT.
Name _____ Permanent Mailing Address _____
2. LOCATION OF WELL: TOWN Rutland SUBDIVISION _____ LOT NO. _____
3. DATE WELL WAS COMPLETED 4/5/83
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other _____
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____
7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☐ Open End Casing, ☐ Screened or Slotted, ☐ Other _____
8. TOTAL DEPTH OF WELL: 285 feet below land surface.
9. CASING FINISH: ☒ Above ground, Finished, ☐ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____
10. CASING DETAILS: Total length 120 ft. Length below L.S. 118 ft. Dia. 6 in. Material Steel Wt. 17 lb/ft.
11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb/ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type _____, Drilled _____ in hole _____ ft in Bedrock
☐ Other _____
13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft, Diameter _____ in.
Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used: Gravel Size or Type _____
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☐ Compressed Air, for 2 Hours at 10 Gallons per minute
Measured by ☐ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline Installed
15. STATIC WATER LEVEL: 50' feet below land surface, Date or Time measured _____, Overflows at _____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where _____
17. SPECIAL NOTES: _____
18. WELL LOG

Depth from Land Surface		Water Bearing	Formation Description	Sketch
Feet	Feet			
Ground Surface	120		CLAY HARD PAN	6 1/2"
120	120		SOFT LIMESTONE	6 1/2"
120	285		CH. ARTZ L LIMESTONE	6 1/2"

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.

N

CAMPBELL HILL RD

20. TESTED YIELD

If the yield was tested at different depths during drilling, list below

Feet	Gallons Per Minute

WELL DRILLED BY: Donald E. Parker Jr.DOING BUSINESS AS: PARKEE WATER WELLS

Company or Business Name

REPORT FILED BY: Donald E. Parker Jr.

Authorized Signature

DATE OF REPORT: _____

WELL DRILLERS LIC. NO. _____

39
(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DEPARTMENT OF WATER RESOURCES AND ENVIRONMENTAL ENGINEERING

WELL COMPLETION REPORT

JUN 7 1983

W.R. 287 U.S.G.S.

Field Location ☐ Map area

Latitude " Elev.

Longitude " Topo.

Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐Location map attached to WCR 286 Data in Town Files ☐

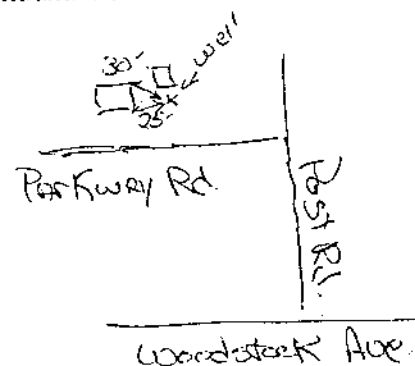
1. WELL OWNER Mike Mayhew Parkway Rd. Rutland, VT.
OR
WELL PURCHASER Rutland Rutland
2. LOCATION OF WELL: TOWN Rutland SUBDIVISION LOT NO.
3. DATE WELL WAS COMPLETED 12/10/82
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other
5. REASON FOR DRILLING WELL: ☒ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other
7. TYPE OF WELL: ☐ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted, ☐ Other
8. TOTAL DEPTH OF WELL: 163 feet below land surface.
9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other
10. CASING DETAILS: Total length 163 ft. Length below L.S. 163 ft. Dia. 6 in. Material Steel Wt. 14.45 lb./ft. NEW
11. LINER OR INNER CASING DETAILS: Length used ft. Diameter in. Material Weight lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type , Drilled in. hole ft. in Bedrock
☐ Other
13. SCREEN DETAILS: Make and Type , Material , Length ft., Diameter in.
Slot Size , Depth to top of screen in feet below land surface ft., Gravel pack if used: Gravel Size or Type
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 2 1/2 Hours at 7 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: feet below land surface, Date or Time measured , Overflows at G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where
17. SPECIAL NOTES: GRAVEL well

18. WELL LOG

Depth from Land Surface		Water Bedding	Formation Description	Sketch
Feet	Feet			
Ground Surface	50		GRAVEL	
50	105		Sand with boulders	
105	156		Sand	
156	163	✓	GRAVEL	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD

If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute
160	7

WELL DRILLED BY: Edward StrombergDOING BUSINESS AS: Green Mountain Well Co. Inc.
Company or Business NameREPORT FILED BY: Authorized SignatureDATE OF REPORT: 12/13/82 WELL DRILLERS LIC. NO. 53

WELL NUMBER

Form WR-59

Rev. 7-22

(For Driller's Use)

State of Vermont

DEPARTMENT OF WATER RESOURCES

WR #171 USGS RTW-208

WELL COMPLETION REPORT

DO NOT FILL IN

Field Loc ☒ Map Des _____
 a. 43°37'19" Alt 670 TS _____
 Lo. 72°57'03" HU _____
 Scale: 62500 ☐ 25000 ☐ 24000 ☐

SEP 7 1976

#171

WELL OWNER FRANK P. PENNING Gleason Rd. Rutland Town, VT.
 Name Mailing Address

TOWN IN WHICH WELL IS LOCATED: RUTLAND TOWN

(Please locate well on a large scale map to accompany this report. Maps are available on request.)

DATE WELL WAS COMPLETED: 9-2-76PROPOSED USE OF WELL: ☒ Domestic ☐ Agricultural ☐ Business Establishment☐ Municipal ☐ Industrial ☐ Other (Specify) _____

DRILLING EQUIPMENT:

☐ Cable Tool ☒ Rotary ☒ Air Percussion☐ Other (Specify) _____TOTAL DEPTH OF WELL: 70 STATIC WATER OVERFLOW TRUCKLECASING DETAILS: Length 54 ft. Diameter 6 in. Material STEELWeight 19.45 lb./ft.

SCREEN DETAILS: Make _____ Material _____ Length _____ ft.

Diameter _____ in. Slot Size _____

METHOD OF SEALING CASING TO SCREEN OR BEDROCK: CAMPINGFINAL YIELD TEST: ☐ Bailed, or ☐ Pumped, or ☒ Compressed Air1 Hours at 4 1/2 gallons per minute

Water level during yield test _____

WELL LOG

Depth From

Ground Surface

Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse, color of material, structure (loose, packed, cemented, hard). For example: Surface to 27 ft. fine, packed, yellow sand; to 134 ft. gray granite.

Surface to 7.5 ft. CLAY7.5 to 70 ft. UNCONSOLIDATED DUNSTON DELOMITE

to ft.

to ft.

to ft.

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.

G.P.M.

ft.

G.P.M.

ft.

G.P.M.

WATER ANALYSIS: Has water been analyzed? ☐ Yes ☒ No If Yes, Where _____

Include Analysis

DRILLED BY: Raymond L. Leonard Jr.

Signature

DOING BUSINESS AS: Green Mt. Drilling Co., Inc.

Company

DATE OF REPORT: 9-24-76WELL DRILLERS LICENSE NO. 57

WELL NUMBER

Form WR-59
Rev. 7-22

(For Driller's Use)

State of Vermont
DEPARTMENT OF WATER RESOURCES
WELL COMPLETION REPORT

DO NOT FILL IN

(This report must be completed and submitted to the Department of Water Resources, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of well. Complete or line out all blanks.)

APR 21 1980

250

WELL OWNER Ernest Bibeault Townline Rd Rutland VT 05701
Name Mailing AddressTOWN IN WHICH WELL IS LOCATED: Rutland (Please locate well on a large scale map to accompany this report. Maps are available on request.)DATE WELL WAS COMPLETED: End of Aug 1979PROPOSED USE OF WELL: ☒ Domestic ☐ Agricultural ☐ Business Establishment
☐ Municipal ☐ Industrial ☐ Other (Specify)DRILLING EQUIPMENT: ☒ Cable Tool ☐ Rotary ☐ Air Percussion
☐ Other (Specify)TOTAL DEPTH OF WELL: 30 ft STATIC WATER 5 ftCASING DETAILS: Length 30 ft ft. Diameter 10 in. Material Steel
Weight about 50 lb./ft.SCREEN DETAILS: Make _____ Material _____ Length _____ ft.
Diameter _____ in. Slot Size _____METHOD OF SEALING CASING TO SCREEN OR BEDROCK: No bedrock - worked about 5 yds. at ft. in.FINAL YIELD TEST: ☒ Bailed, or ☒ Pumped, or ☐ Compressed Air
24 Hours at 3 1/2 gallons per minute
Water level during yield test 24 ft
Penetration around outside bottom of well by pumping endless amount of sand cut.

WELL LOG

Depth From
Ground Surface

Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse, color of material, structure (loose, packed, cemented, hard). For example: Surface to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.

Surface to 2 ft. Hardpan
2 to 30 ft. fine sandy clay - Please refer to other side
to ft. well completed at 30 ft
to ft.

YIELD TEST DATA IN G.P.M.

If yield was tested at different depths during drilling,
List Below

G.P.M. @ ft.

G.P.M. @ ft.

G.P.M. @ ft.

G.P.M. @ ft.

WATER ANALYSIS: Has water been analyzed? ☒ Yes ☐ No If Yes, Where
Include AnalysisDRILLED BY: Henry Eager

Signature

DOING BUSINESS AS: Above

Company

DATE OF REPORT: Apr 17 1980WELL DRILLERS LICENSE NO. 159

WELL NUMBER

367

(For Driller's Use)

Form WR-59

Rev. 7-22

State of Vermont
DEPARTMENT OF WATER RESOURCES

WELL COMPLETION REPORT

JUN 11 1981

DO NOT FILL IN

258

(This report must be completed and submitted to the Department of Water Resources, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of well. Complete or line out all blanks.)

WELL

OWNER

Mr. James McLaughlin 48 Woodstock Ave. Rutland, VT 05701

Name

Mailing Address

TOWN IN WHICH WELL IS LOCATED:

Rutland

(Please locate well on a large scale map to accompany this report. Maps are available on request.)

DATE WELL WAS COMPLETED:

Nov 18, 1980

PROPOSED USE OF WELL:

☒ Domestic☐ Agricultural☐ Business Establishment☐ Municipal☐ Industrial☐ Other (Specify)

DRILLING EQUIPMENT:

☐ Cable Tool☐ Rotary☒ Air Percussion☐ Other (Specify)

TOTAL DEPTH OF WELL:

205 ft.

STATIC WATER

30 ft.

CASING DETAILS: Length

100

ft. Diameter

6

in. Material

steel

Weight

19

lb./ft.

SCREEN DETAILS: Make

Material

Length

ft.

Diameter

in. Slot Size

METHOD OF SEALING CASING TO SCREEN OR BEDROCK:

drill shoe

FINAL YIELD TEST: ☐ Bailed, or ☐ Pumped, or ☒ Compressed Air

4 Hours at

100

gallons per minute

Water level during yield test

50 ft.

WELL LOG

Depth From

Ground Surface

Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse, color of material, structure (loose, packed, cemented, hard). For example: Surface to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.

Surface to 100 ft.

hard pan sand & gravel

100 to 205 ft.

limestone

to ft.

to ft.

YIELD TEST DATA IN G.P.M.

If yield was tested at different depths during drilling, List Below

G.P.M. @ ft.

G.P.M. @ ft.

G.P.M. @ ft.

G.P.M. @ ft.

WATER ANALYSIS: Has water been analyzed? ☐ Yes ☒ No If Yes, Where

Include Analysis

DRILLED BY:

George Basler

Signature

DOING BUSINESS AS:

Basler Water Wells & Drilling

Company

DATE OF REPORT:

Dec 1, 1980

WELL DRILLERS LICENSE NO.

128

(For Driller's Use)

This report must be completed and submitted to the Department of Water Resources and Environmental Engineering, State Office Building, Montpelier, Vermont 05602, no later than 60 days after completion of the well.

DEPARTMENT OF WATER RESOURCES AND ENVIRONMENTAL ENGINEERING

WELL COMPLETION REPORT

FEB 27 1981

Location map attached to WCR

W.R. 254 U.S.G.S. _____
Field Location ☐ Map area _____
Latitude _____ " Elev. _____
Longitude _____ " Topo. _____
Scale: 62,500 ☐ 25,000 ☐ 24,000 ☐
Data in Town Files ☐

1. WELL OWNER Martin P. Hussey
OR
WELL PURCHASER Construction Management Inc. 112 Stratton Rd. Rutland, Vt. 05701
2. LOCATION OF WELL: TOWN Rutland Town SUBDIVISION _____ LOT NO. _____
3. DATE WELL WAS COMPLETED 12/24/1980
4. PROPOSED USE OF WELL: ☒ Domestic, ☐ Other _____
5. REASON FOR DRILLING WELL: ☒ New Supply, ☐ Replace Existing Supply, ☐ Deepen Existing Well, ☐ Test or Exploration,
☐ Provide Additional Supply, ☐ Other _____
6. DRILLING EQUIPMENT: ☐ Cable Tool, ☒ Rotary with A-P, ☐ Other _____
7. TYPE OF WELL: ☒ Open Hole in Bedrock, ☒ Open End Casing, ☐ Screened or Slotted, ☐ Other _____
8. TOTAL DEPTH OF WELL: 105 feet below land surface.
9. CASING FINISH: ☐ Above ground, Finished, ☒ Above ground, Unfinished, ☐ Buried, ☐ In Pit, ☐ Removed, ☐ None used, ☐ Other _____
10. CASING DETAILS: Total length 105 ft. Length below L.S. _____ ft. Dia. 7 in. Material steel wt. 23 lb./ft.
11. LINER OR INNER CASING DETAILS: Length used _____ ft. Diameter _____ in. Material _____ Weight _____ lb./ft.
12. METHOD OF SEALING CASING TO BEDROCK: ☒ Drive Shoe, ☐ Grout - type _____, Drilled _____ in hole _____ ft. in Bedrock
☐ Other _____
13. SCREEN DETAILS: Make and Type _____, Material _____, Length _____ ft., Diameter _____ in.,
Slot Size _____, Depth to top of screen in feet below land surface _____ ft., Gravel pack if used: Gravel Size or Type _____
14. YIELD TEST: ☐ Bailed, ☐ Pumped, ☒ Compressed Air, for 1 Hours at 6 Gallons per minute
Measured by ☒ Bucket, ☐ Orifice pipe, ☐ Wier, ☐ Meter ☐ Permanent Airline installed
15. STATIC WATER LEVEL: 22 feet below land surface, Date or Time measured 12/24/80, Overflows at _____ G.P.M.
16. WATER ANALYSIS: Has the water been analyzed? ☐ Yes ☐ No, If Yes, Where _____
17. SPECIAL NOTES: _____

18. WELL LOG

Depth from Land Surface		Water Bearing	Formation Description	Sketch
Feet	Feet			
Ground Surface	95		Sand & boulders	
95	105	x	Gravel	
			6 gpm @ 80 ft.	

19. SITE MAP

Show permanent structure such as buildings, septic tanks, and/or other land marks and indicate not less than two distances to the well. Indicate local street name and subdivision lot number.

N
↑

20. TESTED YIELD

If the yield was tested at different depths during drilling, list below.

Feet	Gallons Per Minute

WELL DRILLED BY: George Spear & Bob HaywardDOING BUSINESS AS: Ottawaquechee Drilling Co., Inc.
Company or Business NameREPORT FILED BY: Allen M. Moyer
Authorized SignatureDATE OF REPORT: 1/31/1981 WELL DRILLERS LIC. NO. 6

State of Vermont
DEPARTMENT OF WATER RESOURCES

#137

Form WR-59

WELL COMPLETION REPORT

WR 137 USGS RTW-209

Field Loc ☒ Map Des

La. 43° 37' Alt 750 TS

Lo. 72° 56' ☐ HU

Scale: 62500 ☐ 25000 ☐ 24000 ☐

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Do not fill in

WELL

OWNER

Mr Walter Rydjaski
Name

Elbern Ave Rutland, Vt.

Mailing Address

WELL

DRILLER

C. & F. Rabtoy

North Clarendon, Vt. 05759

Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic

☐ Agricultural

☐ Business
Establishment

☐ Municipal

☐ Industrial

☐ Other (Specify use)

CASTING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: 76 Feet	<input checked="" type="checkbox"/> Bailed or	4 Hours	Static: 4 Feet	Make: None
Diameter: 6 Inches	<input type="checkbox"/> Pumped or	25 GPM	During Yield Test: 76 Feet	Material:
Kind: Morris pipe	<input type="checkbox"/> Compressed Air		DRILLING EQUIPMENT	Slot Size
Weight: 19 lbs/p/ft			<input checked="" type="checkbox"/> Cable Tool	Length: Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: 25 GPM		<input type="checkbox"/> Rotary	Diameter: in.
			<input type="checkbox"/> Air Percussion	
			<input type="checkbox"/> Other (specify)	

TOTAL DEPTH OF WELL

76

FEET

TOWN WELL IS LOCATED IN: Rutland, Vt.

(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
0 ft. to 1 ft.	Loom
1 ft. to 10 ft.	Coarse gravel & boulders.
10 ft. to 63 ft.	Hardpan
63 ft. to 70 ft.	Sand tan
70 ft. to 76 ft.	Gravel. .062 1.250

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? no

Where was sample analyzed?

Include analysis of sample if analyzed by other than Department of Water Resources.)

When Well was Completed 6/8/73

Date of Report 7/5/73

Driller's License No. 41

Well Driller

Calvin Rabtoy
(signature)

State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

127444 7/24/11

WELL COMPLETION REPORT

WR #8 USGS RTW-76

Field Loc ☒ Map Des _____
La. 43° 39' 32" Alt 720 TS _____
Lo. 73° 00' 05" ☐ HU _____
Scale: 62500 ☐ , 25000 ☐ , 24000 ☐

tted to
Office
ar than

Do not fill in
State Well No. _____
Other No. N-43° 39' 18" W-73° 00' 58"

WELL OWNER Norman S. Baker Plains Road Pittsford, UT.
Name Mailing Address

WELL DRILLER Green Mt. Drilling Co., Inc. Center Rutland, Ut.
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use) _____

CASTING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: 28 Feet	<input type="checkbox"/> Bailed or	1 Hours	Static: _____ Feet	Make: _____
Diameter: 6 Inches	<input type="checkbox"/> Pumped or	6 GPM	During Yield Test: _____ Feet	Material: NONE
Kind: STEEL	<input checked="" type="checkbox"/> Compressed Air		DRILLING EQUIPMENT	Slot Size
Weight: 16 lbs/p/ft			<input type="checkbox"/> Cable Tool	Length: _____ Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: 6 GPM		<input checked="" type="checkbox"/> Rotary	Diameter: _____ in.
			<input type="checkbox"/> Air Percussion	
			<input type="checkbox"/> Other (specify)	

TOTAL DEPTH OF WELL 97 FEET TOWN WELL IS LOCATED IN: RUTLAND TOWN
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
0 ft. to 22 ft.	MED. SAND w/ BOULDERS
22 ft. to 97 ft.	QUARTZ
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? No

Where was sample analyzed?

Include analysis of sample if analyzed by other than Department of Water Resources.)

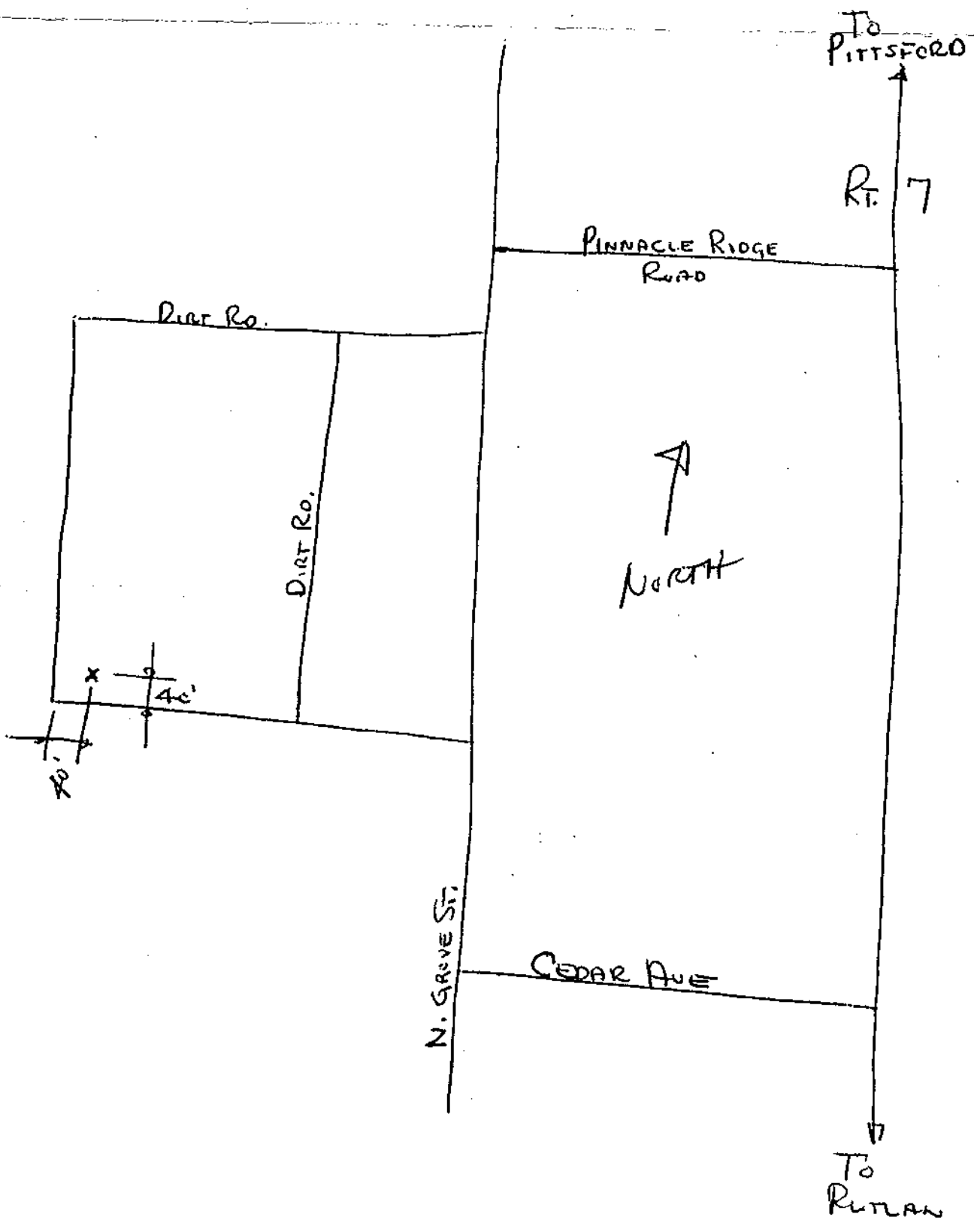
Date Well was Completed 2-28-67

Date of Report 3-1-67

Water Well Driller's License No. 51

Well Driller

(signature)



RECEIVED
MAR 6 - 1967
Dept. of Water Resources

State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

WR #7 USGS W-90

Field Loc ☐ Map Des ☐ ted to
La. 43°39'21" Alt 680 TS. Office
Lo. 72°59'18" HU r than
Scale: 62500 ☐ 25000 ☐ 24000 ☐

Do not fill in

State Well No. 43°39'24.7"
Other No. 6-72°59'18.5"

WELL OWNER EDWARD FENTON RUTLAND TOWN, VT.
Name Mailing Address

WELL DRILLER GREEN MOUNTAIN DRILLING CO., INC. CENTER RUTLAND, VT.
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASTING DETAILS (Inside)	YIELD TEST	WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: <u>50</u> Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	Static: <u>4</u> Feet	Make:
Diameter: <u>3</u> Inches	<u>2</u> Hours <u>5</u> GPM	During Yield Test: <u> </u> Feet	Material: <u>NONE</u>
Kind: <u>STEEL</u>		DRILLING EQUIPMENT	Slot Size
Weight: <u>16</u> lbs/p/ft		<input type="checkbox"/> Cable Tool	Length: <u> </u> Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: <u>5</u> GPM	<input checked="" type="checkbox"/> Rotary	Diameter: <u> </u> in.
		<input type="checkbox"/> Air Percussion	
		<input type="checkbox"/> Other (specify)	

TOTAL DEPTH OF WELL 128-0 FEET TOWN WELL IS LOCATED IN:
(Make sketch of well location on reverse side of sheet)

WELL LOG

RUTLAND TOWN

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
<u>0</u> ft. to <u>5</u> ft.	<u>SAND</u>
<u>5</u> ft. to <u>45</u> ft.	<u>GLACIAL TILL</u>
<u>45</u> ft. to <u>128</u> ft.	<u>DURHAM DOLOMITE</u>
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? No

Where was sample analyzed?

Include analysis of sample if analyzed by other than Department of Water Resources.)

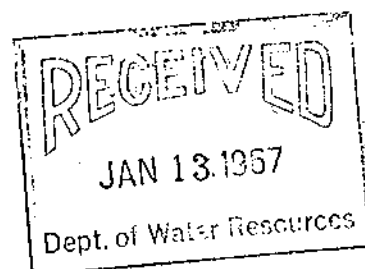
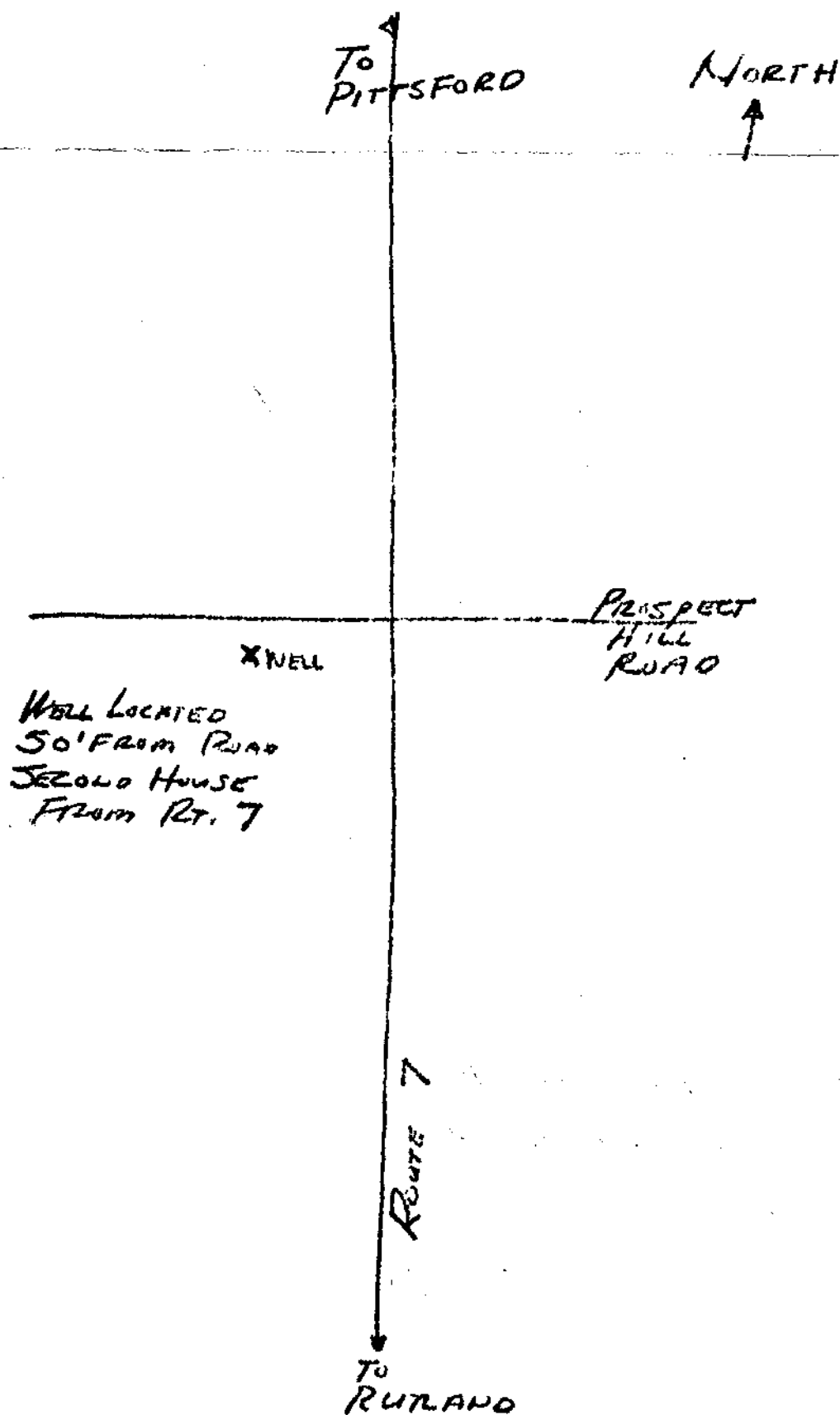
Date Well was Completed 12-14-66

Date of Report 12-24-66

Water Well Driller's License No. 51

Well Driller

Thayer H. Robert
(signature)



State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

WR #24 USGS RTW-98
Field Loc ☒ Map Des
La. 43°38'07" Alt 620 TS
Lo. 72°58'51" ☐ RU
Scale: 62500 ☐ 25000 ☐ 24000 ☐

mitted to
ate Office
later than

Do not fill in
State Well No. 43°38'16"
Other No. W-72°59'04"

WELL OWNER Rutland Town Fire Dept. Station #1 RFD Rutland, VT.
Name Mailing Address

WELL DRILLER Green Mt. Drilling Co., Inc. Box 26 Ctr. Rutland, VT.
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASING DETAILS (Inside)	YIELD TEST	WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: 31 Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	Static: 20 Feet During Yield Test: Feet	Make: NONE
Diameter: 6 Inches		DRILLING EQUIPMENT	Material:
Kind: STEEL		<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Air Percussion <input type="checkbox"/> Other (specify)	Slot Size
Weight: 16 lbs/p/ft			Length: Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: 1 GPM		Diameter: in.

TOTAL DEPTH OF WELL 300 FEET TOWN WELL IS LOCATED IN: Rutland Town
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
0 ft. to 25 ft.	CLAY
25 ft. to 300 ft.	DOWMITE LT. & DK. GRAY
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

228 ft.	1/2 G.P.M.
300 ft.	1 G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? No

Where was sample analyzed?

Include analysis of sample if analyzed by other than Department of Water Resources.)

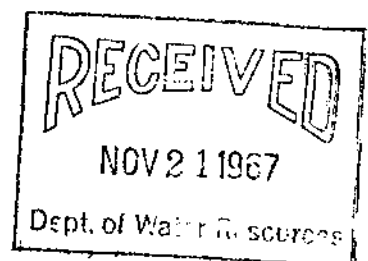
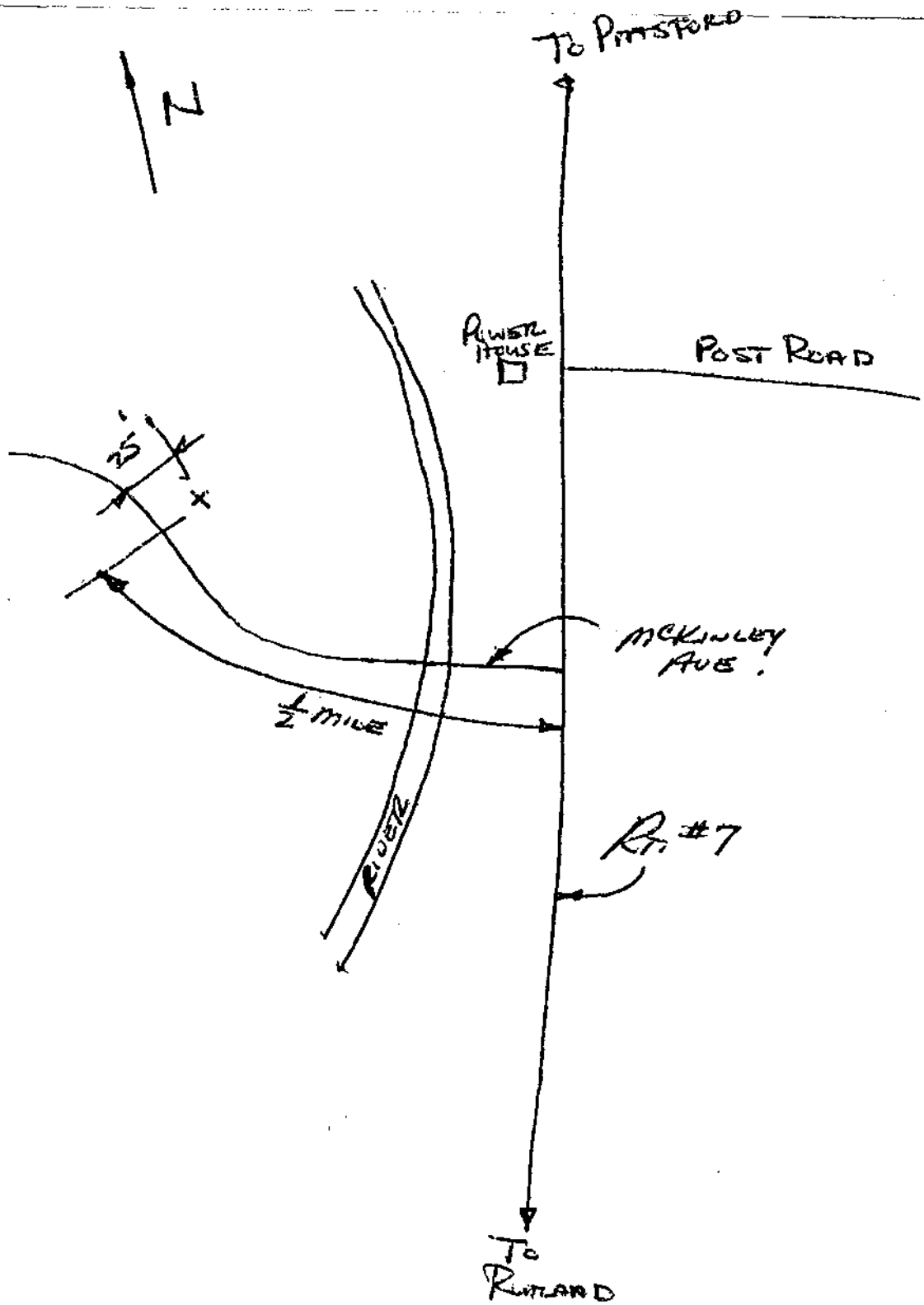
Date Well was Completed 10-17-67

Date of Report 10-18-67

Water Well Driller's License No. 51

Well Driller

Donald W. R. Pharo
(signature)



State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

WR#19 USGS RTW-185
Field Loc ☒ Map Des _____
La. 43° 38' Alt 705 TS _____
Lo. 72° 57' ☐ HU _____
Scale: 62500 ☐ , 25000 ☐ , 24000 ☐

itted to
Office
er than

Do not fill in
State Well No. _____
Other No. See 06-071-006

WELL
OWNER ROBERT WYNNE JR. Blue Ridge Drive Rutland Town
Name Mailing Address

WELL
DRILLER Green Mt. Drilling Co., Inc. Box 26 Ctr. Rutland, UT.
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use) _____

CASTING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: <u>196</u> Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	<u>1</u> Hours <u>2 1/2</u> GPM	Static: <u>40'</u> Feet During Yield Test: _____ Feet	Make: <u>NONE</u>
Diameter: <u>6</u> Inches			DRILLING EQUIPMENT	Material: _____
Kind: <u>STEEL</u>			<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Air Percussion <input type="checkbox"/> Other (specify) _____	Slot Size
Weight: <u>16</u> lbs/p/ft				Length: _____ Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: <u>2 1/2</u> GPM			Diameter: _____ in.

TOTAL DEPTH OF WELL 328' FEET TOWN WELL IS LOCATED IN: RUTLAND TOWN
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
<u>0</u> ft. to <u>190</u> ft.	<u>CLAY, HAROPAN & BOULDERS</u>
<u>190</u> ft. to <u>328</u> ft.	<u>DUNHAM DOLOMITE</u>
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? No

Where was sample analyzed?

Include analysis of sample if analyzed by other than Department of Water Resources.)

Date Well was Completed 5-24-67

Date of Report 6-18-67

Water Well Driller's License No. 51

Well Driller Robert Wynne Jr.
(signature)

CHASANNA DRIVE

EASY ST.

BLUERIDGE DRIVE

Lincoln Drive

Lot #32

6x

Rutland
Town
Elem.
School



Post Road

N

PITTSFORD

POWER
STATION

Rt. #7

To
RUTLAND

RECEIVED
JUN 21 1967
Dept. of Water Resources

State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

WR# 17 USGS RTW-156
Field Loc ☒ Map Des
La. 43° 38' Alt 715 TS
Lo. 72° 57' ☐ HU
Scale: 62500 ☐ 25000 ☐ 24000 ☐

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ate Office
ater than

Do not fill in
State Well No.
Other No. Sec. 66-071-006

WELL OWNER Alexander Norden Post Road RD#2 Rutland, VT.
Name Mailing Address

WELL DRILLER Green Mt. Drilling Co. Box 26 Carter Rutland, VT.
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASTING DETAILS (Inside)	YIELD TEST	WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: <u>56</u> Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	Static: <u>?</u> Feet During Yield Test: <u>100</u> GPM Feet	Make: <u>NONE</u>
Diameter: <u>6</u> Inches		DRILLING EQUIPMENT <input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Air Percussion <input type="checkbox"/> Other (specify)	Material: <u>Slot Size</u>
Kind: <u>STEEL</u>			Length: <u> </u> Ft.
Weight: <u>16</u> lbs/p/ft			Diameter: <u> </u> in.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: <u>100</u> GPM		

TOTAL DEPTH OF WELL 172 FEET TOWN WELL IS LOCATED IN: RUTLAND TOWN
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
<u>0</u> ft. to <u>45</u> ft.	<u>CLAY w/ BOULDERS</u>
<u>45</u> ft. to <u>172</u> ft.	<u>DURHAM DOLOMITE</u>
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? NO

Where was sample analyzed?

Include analysis of sample if analyzed by other than Department of Water Resources.)

ate Well was Completed 5-16-67

Date of Report 5-21-67

Water Well Driller's License No. 51

Well Driller Thos J. R. Smith
(signature)

CHASAMMA DRIVE

EASY ST

BLUE RIDGE DRIVE

Rutland Town
Elem School

Well

LOT
#9

POST
ROAD

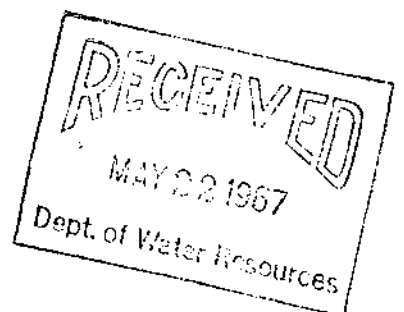
NORTH

To
PITSFORD

POWERS
HOUSE

RT. #7

To
RUTLAND



State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WR 14 USGS RTW-88
Field Loc ☒ Map Des
La. 43° 39' 37" Alt 705 TS
Lo. 73° 00' 03" HU
Scale: 62500 ☐ , 25000 ☐ , 24000 ☐

WELL COMPLETION REPORT

itted to
e Office
ter than

Do not fill in
State Well No. _____
Other No. *See 06-071-002*

WELL OWNER *HENRY FITZGERALD, JR. CEDAR AVE. RFD RUTLAND, VT.*
Name Mailing Address

WELL DRILLER *GREEN Mt. Drilling Co., Inc. Box 26 CTR. RUTLAND, VT*
Name Mailing Address

PROPOSED USE OR USES (Check):

- ☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: <i>30</i> Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	<i>1</i> Hours <i>6</i> GPM	Static: _____ Feet During Yield Test: _____ Feet	Make: <i>NONE</i>
Diameter: <i>6</i> Inches			DRILLING EQUIPMENT	Material: _____
Kind: <i>STEEL</i>			<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Air Percussion <input type="checkbox"/> Other (specify)	Slot Size _____
Weight: <i>14</i> lbs/p/ft				Length: _____ Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: <i>6</i> GPM			Diameter: _____ in.

TOTAL DEPTH OF WELL *127* FEET TOWN WELL IS LOCATED IN: *RUTLAND TOWN*
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
<i>0</i> ft. to <i>24</i> ft.	<i>FINE SAND w/ Boulders</i>
<i>24</i> ft. to <i>127</i> ft.	<i>DURHAM DOLOMITE</i>
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.
If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? *No*

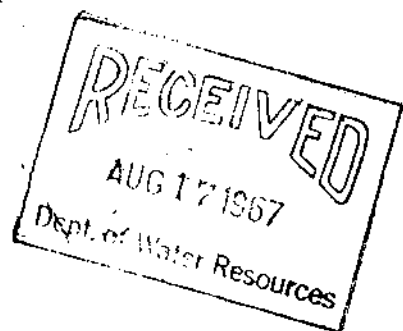
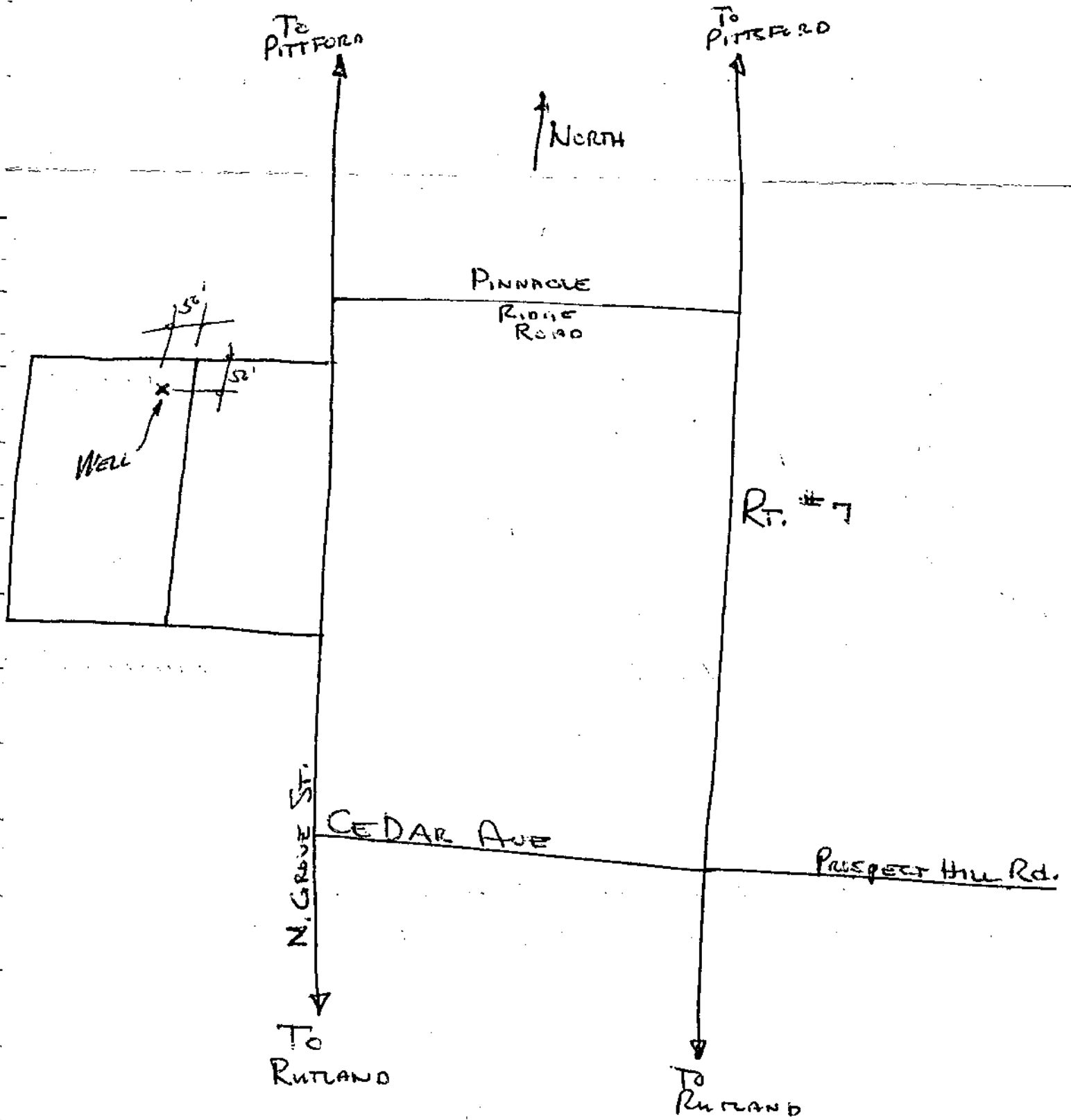
Where was sample analyzed?
Include analysis of sample if analyzed by other than Department of Water Resources.)

State Well was Completed *7-20-67*

Date of Report *7-29-67*

Water Well Driller's License No. *51*

Well Driller *[Signature]*
(signature)



State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

WR #6, USGS RTW-126

Field Loc ☒ Map Des
La. 43° 38' Alt 765 TS
Lo. 72° 57' HU
Scale: 62500 ☐ 25000 ☐ 24000 ☐itted to
Office
er than

Do not fill in

State Well No. 43° 38' 11"
Other No. W-72° 57' 45'WELL
OWNER MRS Mc CORMICH POST ROAD RUTLAND TOWN
Name Mailing AddressWELL
DRILLER GREEN MOUNTAIN DRILLING CO., INC. CENTER RUTLAND, VT.
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business
Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASTING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: 158 Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input type="checkbox"/> Compressed Air	4 Hours 5 GPM	Static: 65 Feet During Yield Test: Feet	Make: NONE
Diameter: 6 Inches			DRILLING EQUIPMENT	Material:
Kind: STEEL			<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Air Percussion <input type="checkbox"/> Other (specify)	Slot Size
Weight: 16 lbs/p/ft				Length: Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: 5 GPM			Diameter: in.

TOTAL DEPTH OF WELL 156 FEET TOWN WELL IS LOCATED IN: RUTLAND TOWN
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hard- pan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, me- dium, coarse) color of material, structure (loose, packed, cemented, hard). For exam- ple: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
0 ft. to 150 ft.	GLACIAL TILL, BOULDERS, CLAY
150 ft. to 156 ft.	ETC.
ft. to ft.	DUNHAM DOLOMITE
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? NO

Where was sample analyzed?

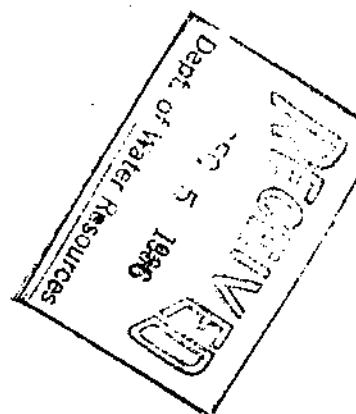
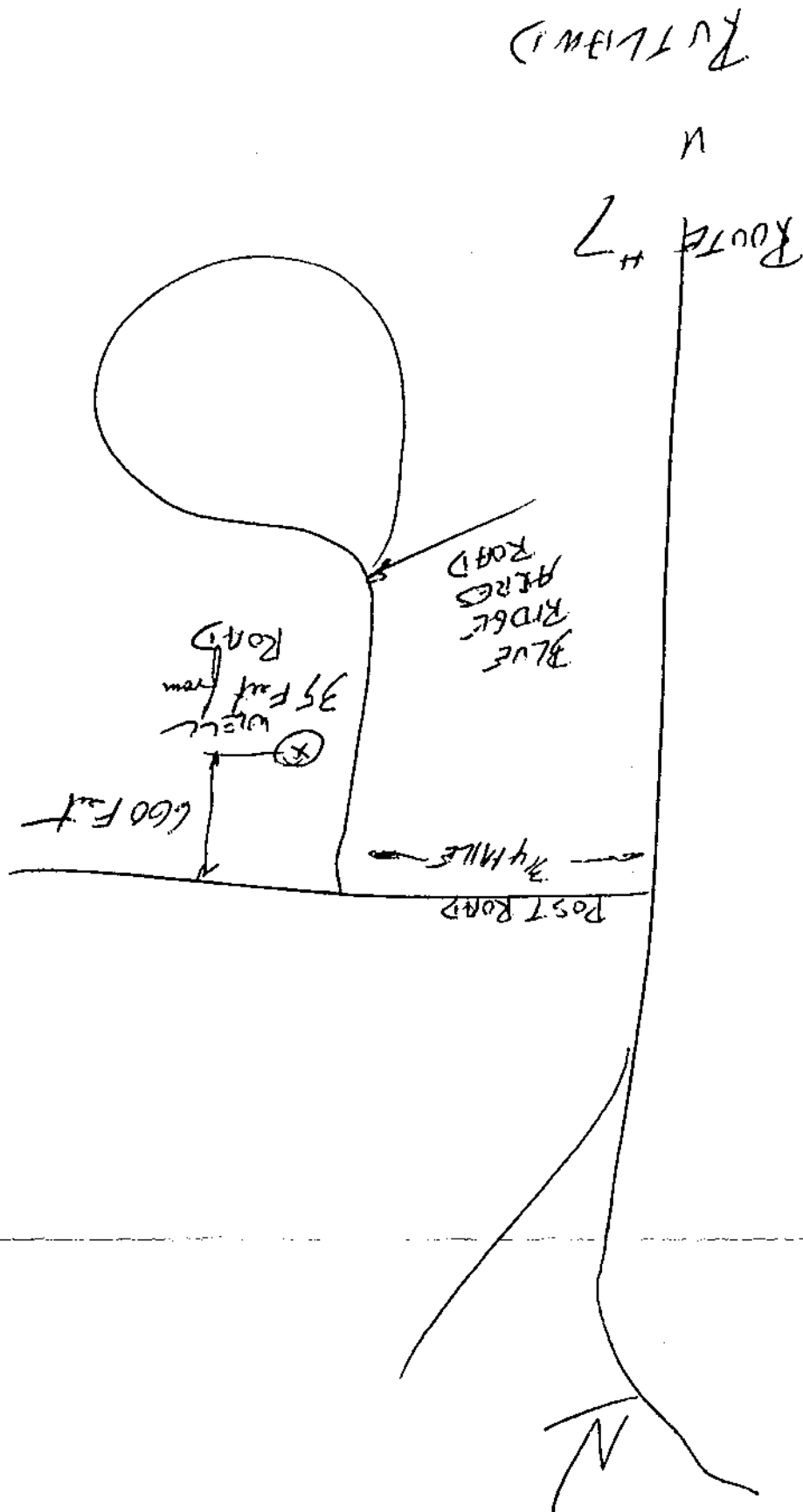
Include analysis of sample if analyzed by other than Department of Water Resources.)

Date Well was Completed 9-23-66

Date of Report 12-2-66

Water Well Driller's License No. 51

Well Driller Lloyd H. Peltier
(signature)



State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

WR _____, USGS W237
Field Loc. Map Des _____
La. _____ Alt. _____ TS _____
Lo. _____ HU _____
Scale: 62500 ☐ , 25000 ☐ , 24000 ☐

ted to
Office
r than

Do not fill in
State Well No. 43° 38' 16"
Other No. W-72° 57' 45"

WELL OWNER LEE YOUNG CHASANNA DRIVE RUTLAND TOWN
Name Mailing Address

WELL DRILLER GREEN MOUNTAIN DRILLING CO INC, Box 26 CENTER RUTLAND, VT
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASTING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: <u>61</u> Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	<u>3</u> Hours <u>15</u> GPM	Static: <u>60</u> Feet During Yield Test: _____ Feet	Make: <u>NONE</u>
Diameter: <u>6</u> Inches			DRILLING EQUIPMENT <input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary <input type="checkbox"/> Air Percussion <input type="checkbox"/> Other (specify)	Material: _____ Slot Size _____
Kind: <u>STEEL</u>				Length: _____ Ft.
Weight: <u>16</u> lbs/p/ft				Diameter: _____ in.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: <u>15</u> GPM			

TOTAL DEPTH OF WELL 152 FEET TOWN WELL IS LOCATED IN: RUTLAND TOWN
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
<u>0</u> ft. to <u>55</u> ft.	<u>GLACIAL TILL, BOULDER & CLAY</u>
ft. to ft.	
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? NO

Where was sample analyzed?

Include analysis of sample if analyzed by other than Department of Water Resources.)

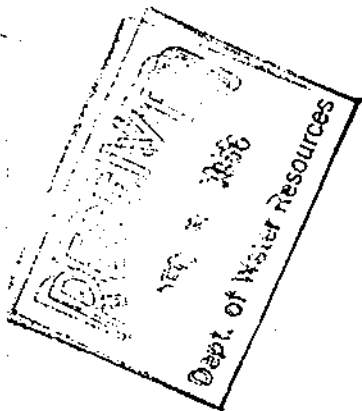
Date Well was Completed 9-30-66

Date of Report 12-2-66

Water Well Driller's License No. 51

Well Driller

Thayer H. Roberts
(signature)



ROUTE #7

POST ROAD

3/4 MILE

(X)

150'

30 Feet from Road

BLUE RIDGE
ACRES
ROAD

RUTLAND
CITY

State of Vermont
DEPARTMENT OF WATER RESOURCES

Form WR-59

WELL COMPLETION REPORT

WR #4 USGS RTW-80

Field Loc ☒ Map Des
La. 43° 34' 27" Alt 840 TS
Lo. 72° 56' ☐ HU
Scale: 62500 ☐ , 25000 ☐ , 24000 ☐

ited to
Office
r than

Do not fill in

State Well No. *N 43° 36' 26"*
Other No. *W 72° 56' 26"*

WELL
OWNER *JOE SELVA* *95 FIRST ST.* *RUTLAND CITY*
Name Mailing Address

WELL
DRILLER *GREEN MOUNTAIN DRILLING CO. INC.* *Box 26 CENTER RUTLAND*
Name Mailing Address

PROPOSED USE OR USES (Check):

☒ Domestic ☐ Agricultural ☐ Business Establishment ☐ Municipal ☐ Industrial
☐ Other (Specify use)

CASTING DETAILS (Inside)	YIELD TEST		WATER LEVEL (From land surface) (if possible)	SCREEN DETAILS
Length: <i>155</i> Feet	<input type="checkbox"/> Bailed or <input type="checkbox"/> Pumped or <input checked="" type="checkbox"/> Compressed Air	<i>2</i> Hours <i>45</i> GPM	Static: <i>?</i> Feet During Yield Test: <i>?</i> Feet	Make: <i>NONE</i>
Diameter: <i>6</i> Inches			DRILLING EQUIPMENT	Material:
Kind: <i>STEEL</i>			<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Air Percussion <input type="checkbox"/> Other (specify)	Slot Size
Weight: <i>16</i> lbs/p/ft				Length: <i>?</i> Ft.
<input checked="" type="checkbox"/> New <input type="checkbox"/> Used	Yield: <i>45</i> GPM			Diameter: <i>?</i> in.

TOTAL DEPTH OF WELL *232* FEET TOWN WELL IS LOCATED IN: *RUTLAND TOWN*
(Make sketch of well location on reverse side of sheet)

WELL LOG

Depth From Ground Surface	Give description of formations penetrated, such as: peat, silt, sand, gravel, clay, hardpan, shale, limestone, granite, etc. Include size of gravel (diameter) and sand (fine, medium, coarse) color of material, structure (loose, packed, cemented, hard). For example: 0 ft. to 27 ft. fine, packed, yellow sand; 27 ft. to 134 ft. gray granite.
<i>0</i> ft. to <i>150</i> ft.	<i>GLACIAL TILL, BOULDERS & CLAY ETC</i>
<i>150</i> ft. to <i>232</i> ft.	<i>DURHAM DOLOMITE</i>
ft. to ft.	
ft. to ft.	
ft. to ft.	

YIELD TEST DATA IN G.P.M.

If yield was tested at different depth during drilling,
List Below

ft.	G.P.M.
ft.	G.P.M.
ft.	G.P.M.

Has sample of well water been analyzed? *NO*

Where was sample analyzed?

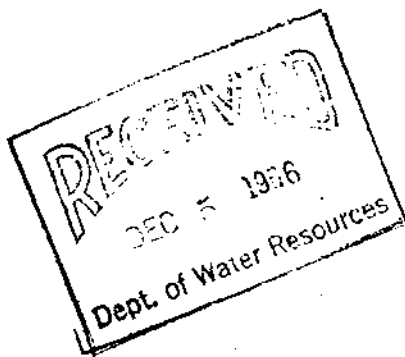
(Include analysis of sample if analyzed by other than Department of Water Resources.)

ate Well was Completed *10-10-66*

Date of Report *12-2-66*

Water Well Driller's License No. *51*

Well Driller *Joseph A. Robert*
(signature)



TOWN LINE ROAD

1/4 MILE



WELL 150 FEET FROM ROAD

VICTORIA DRIVE

KILLINGTON AVE

ROUTE 7



RUTLAND CITY